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Mid Term Assessment of the Seventh Plans (1985-86 to 1989-90) & Mid Year Review of the Economy 1987-88

by

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Manufacturing : General, Public sector, Private sector, Sickness, Small Scale manufactures. Capital goods, machine tools and Engineering, Automobiles, steel, Non-ferous - Aluminium, Zinc, Copper, - Textiles, Jute textiles, Tyres and Bicycles, Fertilisers & Chemicals, Pharmaceuticals, Electronics, Paper & Newsprint, Edible Oils, Sugar, leather, Caustic Soda & Soda Ash, Cement, Polysilicon & LCD.

Infrastructure : Power, Coal, Crude, Railways and Shipping, Telecommunications, Nonconventional Energy.

Science & Technology

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PART I

Mid Term Assessment

of

the Seventh Five Year

Plan

(1985-86 to 1989-90)

Prolegomena

This note on the Mid Term Assessment of the Seventh Five Year Plan 1985-86 to 1989-90 and the Mid Year Review of the Economy for 1987-88 faces a number of constraints.

The first one which affects both the mid term assessment and the mid year review is the nation wide drought being experienced as a result of the failure of the South West monsoon. The effect of the drought will be felt in all facets of the economy - starting with foodgrains production and agriculture generally, its impact on manufacturing and electricity, its effects on the rate of growth of the economy, on prices, on balance of trade, on fiscal returns, and on the resources available for Plan investment. In other words the drought will affect every part of the economy as well as the plan performance at this mid year point. The problem is that at this point of time, it is not possible to assess or measure the extent of the impact of the drought on each of these 9 facets referred to above. Hence on this count there will have to be a good deal of guesstimates and proceeding by hunches rather than by hard data.

A second problem concerns the source material for the two reviews. Reliance is placed as far as the Mid Year Review of the Economy is concerned on the annual reports of the departments and ministries of government, the Annual Report and the Report on Currency and Finance of the Reserve Bank of India, the Central Statistical Organisation's publications and quick estimates and data releases, the Planning Commission's Annual Plan reports, the Annual Survey of Industries, and the reports of the Department of Meteorology. The trouble with these official source is that the data is quite often out of date and is

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available after a long lapse of time. The industrial growth rate index was only available upto February of 1987 for the year 1986-87 in August of 1987. (It was completed for the year in September). Similarly the balance of trade data is officially available in its final definitive form only for and upto 1985-86. The extent to which the 1986-87 targets have been executed will not be available till November 1987, when the Annual Plan for 1986-87 is published. Under these conditions for a good deal of data for 1987-88 and for the forward period, reliance is placed on the research information released by the Centre for Monitoring Indian Economy.

A third constraint in this effort is the incompatability of the data made available from different sources. For instance CSO's quick survey reports that the overall rate of growth of the economy in 1985-86 was 5.1 per cent, while the RBI in both its Annual Report and the Report on Currency and Finance speaks of a 4.5 per cent rate of growth for that year. These differences in data apply also to the aggregate of foodgrains production, to the rate of domestic savings and other such quantities. It is impossible to explain or reconcile these differences. And so one is forced to choose between the differing data that are provided.

Fourth, fairly full data is available only for 1985-86. For 1986-87, the data for important areas like foreign trade, manufacturing industries, the employment generated by the economy and under NREP and RLEGP, and the rate of implementation of IRDP etc. are available only tentatively for the first 9/10 months, April to December/January of 1987. This is also the statistical

profile of the information setforth in the Annual Reports of the Ministries and departments. For the mid term assessment of the Plan data for the third year of the Plan 1987-88 is needed. On this, no official information is available. When the Planning Commission's mid term appraisal is published by next year, there will, it is hoped, be some information available for the current year. For this exercise, some unofficial projections are made based on the targets on the one hand, and the performance in the first 2 years of the Plan on the other, which is not satisfactory, but from which there appeared to be no alternative.

Finally there is a problem somewhat unique to this exercise - and that is coordinating, if not integrating, the performance in the just 6 months of this drought year, 1987-88, with that of the two previous relatively normal years. There are a number of incompatabilities that have to be accommodated in the two sets of data - that for the first 2 years of the plan and that for the third year. In a sense, it is the usual problem of reconciling short term issues with medium term and long term flows. In this exercise, there is interest in both the immediate present, which is a function of an unusual concatenation of circumstances as well as the forces leading up from the sixties to the seventh plan and those leading on to the eighth plan. The extent to which these differing pusher and pulls have been met is a measure of the difficulties involved and how far they have been resolved or allowed to fester.

A summary

The Seventh Plan is not likely to reach its target rate of growth of 5 per cent, the average for the first two years being 4.8 and if a 1.5 to 2.5 per cent growth is assumed for the third year, and a resumed 5 per cent for the last 2 years, the average will be 4.3 to 4.5 per cent. The continuing decline in the growth rate of the commodity producing sector and the increase in the growth of the services sector is disturbing and needs to be reversed.

The major problem faced by the Plan is the resources picture. The first 3 years during which 60 per cent of the Paln outlay (in 1984-85 prices) has been or will have been allocated and disbursed, provides no basis for forecasting the resource position in the last 2 years. Even the Paln outlay for the third year at Rs.25,407 crores is in danger of being reduced because of the resources shortage as worsened by the national drought in 1987-88. It is likely that only 90 per cent of the Plan outlay will have been attained if the whole sale price index is used to deflate the actuals at 1984-85 price levels, and lower at 85 per cent, if the investment price index is used. The heavy reliance of the Plan finance on budget deficits and market borrowing during the first 3 years should be corrected in the remaining 2 years.

Agriculture which has been stagnating during the first 2 years of the Plan, with the output of foodgrains at around 150 million tonnes, faces a serious set back in the third year. Agricultural growth is likely to be -3 to -4 per cent and foodgrain -8 to -9 per cent. Among non foodgrains, sugar cane, cotton and jute have been doing well in the first two years and may not continue to do so in the third year in the case of cotton,

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oil seeds and sugarcane . In this situation in the remaining two years of the Plan, both minor irrigation and animal husbandry need to be intensified.

Industry has been performing at an average 6.4 per cent in the first two years and is moving in that direction in the third year, on the 1970-71 base. Using the revised 1980-81 base, the index shows an average 8.8 per cent which is likely to be reduced to 6.9 - 6 per cent as the record of the third year. The really disturbing feature of the industrial performance is the sharp fall in the growth rate of the manufacturing sector from 6.1 per cent in 1985-86 to 5.1 per cent (1970-71 base) and even sharper fall from 9.7 per cent to 9 per cent as between the two years (1980-81 base). The need to fix targets nearer what is possible, to increase manufacturing performance by improved and optimal use of capital and to review the new industrial policy in light of the industrial response to it during the first 2 years, to make the necessary adjustments during the last 2 years of the Plan is stressed.

Price behaviour in the first two years has been satisfactory, though the movement of prices of wage and essential goods as they affect the poor majority, is disturbing. A steep rise in prices - both wholesale 10-11 and particularly consumers (11-12 per cent) - is expected in 1987-88, though with past experience it should be possible to control their further run away nature.

The Balance of Trade and Balance of Payments have faced heavy deficits in the first 2 years and are likely to face them for the balance of the Plan. The 3 year Import-Export Policy which expires this year should be

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reviewed, and an effort should be made to reduce some of the bulk imports, cut back on bilateral tied loans which add to costly imports, and expand exports.

The Employment, Poverty and Inequality status of the first 2 years of the Plan is blurred because of the lack of official data. Such data as is available on the basis of empirical studies show that neither the employment nor poverty reduction targets of the Plan will be met and the skewed distribution of assets will worsen.

Overall growth of the economy

The midterm assessment of the Seventh Five Year Plan starts with analysis of the traditional measure of the development of the economy - its overall rate of growth.

The Seventh Plan set itself the target of the rate of growth of 5 per cent on what it regarded as a normal base, which was a 5 per cent growth in the base year 1984-85. But 1984-85 did not register the assumed growth rate of 5 per cent but only 3.7 per cent. This means that the growth rate in the first year of the Plan was in part a compensatory rate.

The nominal growth rates for the first 2 years of the Plan were 5.1 per cent in 1985-86,1/ 4.5 per cent in 1986-87 2/ and a projected 1.5 to 2.5 per cent for the third year, 1987-88. The per capita income growth for the 3 years are 3 per cent for 1985-86, 2.5 per cent in 1986-87 and-0.5 to 0.5 per cent for 1987-88.

There are a number of features of this growth performance to be noted. First it is clear that the Seventh Plan target rate of overall growth of 5 per cent and per capita rate of 3 to 3.2 per cent will not be attained.

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If the last two years record a 5 per cent growth each, the average for the Plan period will be 4.3 to 4.5 per cent, and the trend rate will be around 3.7 per cent.

Second this does represent an improved growth performance over that of the first five plans when the average was 4 per cent and the trend rate 3.5 per cent. The Sixth Plan recorded a 5 per cent rate of growth but on a low -4.7 per cent base in 1979-80, which makes the sixth Plan rate a recovery rate rather than a high growth rate. But that the economy has moved to improved rates in the Sixth Plan and in the first 2 years of the Seventh Plan may be conceded, without going as far as the Economic Survey does,[3/] which refers somewhat euphorically to the economy having reached "a new growth path. In the eighties the average annual rate of growth has been 5 per cent.. The industrial growth rate is increasing.... the food position remains comfortable. Inflation is under control in the current year, the trade deficit has also been reduced substantially. These are substantial achievements made possible by a sound and responsible macro economic policy environment." Apart from the optimistic forecast on growth rates, inflation and the trade deficit, which events have belied, the question of the soundness of the economic policy and to whom it is responsible will be discussed later.

Third a disaggregation of this average growth rate raises disturbing inter sectoral distribution issues as the following table shows:

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Table I

Year	NDP at Factor cost Primary sector	Secondary sector	(percent) Tertiary sector
1950-51	57.0	16.4	24.6
1965-66	44.0	22.5	33.5
1970-71	50.1	19.7	30.20
1975-76	47.8	19.7	32.5
1985-86	37.7	21.3	41.0

Source: CSO

The above table shows that in the 60s the primary sector declined by 13 points and these points were equally shared by the secondary and tertiary sector. In the 70s and 80s the decline in the primary sector went almost wholly to the tertiary sector, whose contribution to NDP has shot upto over 40 per cent. This means that the commodity producing sector increased during this period by 3 per cent, while the tertiary sector increased at double that rate, at 6 per cent, with public administration and banking growing at 9 per cent. In public administration, the salaries paid out are used to compute their contribution to NDP. (In China, which is the only comparable country to India, the tertiary sector's contribution has declined from 23 per cent to 20 per cent in the 80s, while in India it has increased from over 30 per cent to over 40 per cent). This means that the improved growth performance in the Sixth and (first two years of the) Seventh Plans are somewhat illusory, because the sectors producing commodities are lagging way behind the services sector. In fact none of the growth rates of the commodity producing sectors - agriculture, mining, manufacturing and electricty generation -- touched the level of the tertiary sector in 1985-86,

when they averaged 5 per cent, are estimated at below that in 1986-87, and will be probably even lower in 1987-88, which means that the country's output of physical goods are keeping ahead of population by a very thin margin.

CSO's estimates of the States' Domestic Product (SDP) for 1970-71 to 1984-85 confirms the above analysis of the National Domestic Product in relation to the states' domestic product. First except for 2 states, Maharashtra and Gujarat, the rate of growth of the states is decelerating, with actuals being lower than the targets. Second in the Sixth Plan per capita income was above the national average in 5 states - Punjab, Haryana, Maharashtra, Gujarat and West Bengal, the other ten recording a lower than the national rate. Third in regard to the good growth performance of the 5 states, a disaggregation shows the share of agriculture declining, the share of industry increasing moderately, and the share of servicing spurting fast at 38.8 per cent for Maharashtra, 37 per cent for West Bengal, 35 per cent for Punjab, 34 per cent for Haryana and 32 per cent for Gujarat. In this connection, the highest share of services in the States' Domestic Product are recorded by those states whose growth rate has been lagging in terms of the target - namely Kerala whose share of services is 45.1 per cent, Tamilnadu at 44.7 per cent, and Andhra Pradesh at 39.5 per cent. There is one further feature which the record of the States' Domestic Product brings out, and that is the worrying problem of regional disparity. The disparity is not only wide as between states, it has been increasing over time. The growth rates of the best performing states in relation to others was 2.8:1 in the VI Plan, compared to 2.7:1 in the 70s and 1.9:1 in the 80s.

National Development has widened regional inequalities.

The Plan

How does the Seventh Plan (1985-86 to 1989-90) stand at this mid term point?

First the Annual Plan outlays of the 3 years have been progressively increasing at Rs.34,579 crores in 1985-86, Rs.40,870 crores in 1986-87 and Rs.44,156 crores in 1986-87. This, as the government repeatedly and proudly points out, is over 60 per cent of the Seventh Plan public Sector outlay proposed at Rs.180,000 at 1984-85 prices (62 per cent at current prices and 60 per cent at 1984-85 prices). This is a sound achievement, and at this rate the Plan outlay in money terms will be attained. But in terms of 1984-85 prices, on the basis of some econometric exercises, it looks as if only 90 per cent of the proposed outlay will be attained if the wholesale price index is used to deflate the Seventh Plan actuals, and 85 per cent if the investment price index is used as the deflator. Further if the current national drought leads to diversion of the Plan outlays to drought relief, the actuals attainment could be less than 85 per cent, depending on the quantum of the diversion. All this points to the urgent need for prioritisation of the investment in the remaining two and half years of the Plan.

At this point the annual actuals and the Seventh Plan investment targets may be looked at as set forth in Table II.

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TABLE II

(Rs.000s)

Head	1985-86		1986-87		1987-88	Plan period	
	amount	%	(Union investment in brackets)				
	Amount	%	Amount	%		Amount	%
Agriculture	2006.88 (911)	6.2	2202.85 (902)	5.6	(912)	10,573.62	5.8
Rural Development	1656.6 (1504)	5.1	2505.3 (1541)	6.4	(1651)	9,074.22	5.04
Special Area Performance	540.41		597.1	1.5		3,144.69	1.74
Irrigation & Flood Control	2881.4 (157)	8.6	3192.7 (163)	8.2	(167)	16,978.65	9.43
Energy	10186.9 (7565)	31.6	11922.1 (7934)	30.5	(7690)	54,821.26	30.5
Industry & Minerals	4663.2 (4506)	14.5	5414.9 (5125)	13.9	(4713)	22,971.62	12.5
Transport	3816.7 (3815)	11.8	5197 (4143)	13.3	(4376)	6,472.46	12.8
Communication Information & Broadcasting	1087.6 (897)	3.4	1252.6 (1061)	3.2	(1229)	4,466	3.6
Science & Technology	444.8 (401)	1.4	259 (506)	1.4	(634)	2,466	1.4
Social Sciences	4786.6	14.8	5809.7	14.9		29,350	16.3
Others	276.9 (197)	0.9	427.6 (194)	1.1	(391)	1,686.79	0.9

Source: Annual Budgets and Seventh Plan.

One immediate conclusion from the above table is that in view of the likely shortfall in Plan investment referred to earlier, there is need to cut back on the outlay on areas like information and broadcasting which is slated to increase by 30 per cent over the Sixth Plan, and increase the investment in

power which is decelerating in percentage terms. At the level of states, there is need to increase the outlay on irrigation and reduce that on transport. In addition in the last 2 years of the Plan, the non plan expenditures on defence, subsidies and services need to be reduced both to reduce reliance on budget deficits and market borrowing and increase Plan outlays.

The resources position of the Plan is disturbing. Against the Rs.180,000 crores at 1984-85 prices needed for the Public sector outlay, the actuals under the major income heads for the first 3 years of the Plan and the projected income for the last two years of the Plan at current prices shows a total of Rs.193,015 crores. In terms of 1984-85 prices, the Rs.193,015 crores at current prices becomes 173,299 crores at 1984-85 prices (deflated by the wholesale prices index) and Rs.168,984 crores (deflated by the investment price index). This shortfall in Plan resources is also seen in the record of gross domestic savings set forth in the table below.

Table III

(Rs.crores)

	1985-86	% of GNP	1986-87	% of GNP	1987-88	% of GNP	Plan target	% of GNP
Gross Domestic Savings ...	55400	(22.8)	63700	(20)	-		148000	23

Source: CSO

One suggestion that emanates from the difficult resources position set forth above is to increase the tax revenue by (a) returning to the pre 1985 position of income and corporate taxation and b) levying a surcharge on all major taxes for the duration of the Seventh Plan. On the

expenditure side, the ratio of non plan expenditure to GDP should be frozen at 1985-86 level of 5 per cent, to give the plan more resources. We shall return to these issues.

Agriculture

The Seventh Plan target for growth in the gross output of Agriculture is 4 per cent. The targeted growth of foodgrains during the Plan period is 3.5 per cent to 4.1 per cent.[5/] In addition there is the aim of extending the 'green revolution' to the Eastern states - of East UP, Bihar, West Bengal, Assam and Orissa for which the targets included an additional 20 million hectares of the gross crop area (within the overall target of 140 million hectares), an additional 26 million hectares of the net sown area (within the overall target of 143 million hectares), a growth in fertiliser consumption of an average 12 per cent per annum (within the overall target of 13.5 to 14 million tonnes), a cropping intensity of 1.52 (against the overall 1.33), an average annual increase of rice production by 19.4 to 24 million tonnes (within the aggregate production target of 73-75 million tonnes), with the yield level being 1260 kg per hectare (compared to the overall 1456 kg per hectare), an annual increase of wheat production of 8 to 9 million tonnes (within the overall annual target of 56 to 57 million tonnes and an additional irrigation target of 13 million hectares (the rest of India having an additional 10.9 million hectares).

The performance during the first 2 years of the Plan and the projection for the third year is set forth in the table below:

TABLE IV

Head	1985-86 Target	1985-86 Actual	1986-87 Target	1986-87 Actual	1987-88 Target	1987-88 Actual
Agriculture%	4	1.4	4	0.2	4.0	-3 to -4
Foodgrain% million tonne	159.20	150.6	160	151		-8 to -9
Rice million tonnes	63.7		65	62.50		50-55
Wheat million tonnes	47.3		49	48		
Coarse grains million tonnes	26.7		32	28.50		15
Pulses	12.9		14	12.50		9
Total foodgrains million tonnes	150.6		160	15.2		
Sugarcane million tonnes	173		195	180		
Cotton lakh bales	86		88	80		
Jute lakh bales	126		85	90		
Oil seeds million tonnes	11.2		14.5	16.6		
Inputs HYV seed million hectares						
fertiliser million tonnes						

Source: CSO and RBI

It is difficult to comment on the agricultural performance at this mid point of the Plan, as this third year is an exceptional one, when there is a steep decline in output due to abnormal drought conditions. Taking the first two years as normal years, it is seen that agriculture as a whole is not doing well as the actuals were about a third of the targets, so that is is likely that the agricultural

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target of 4 per cent growth will not be attained during the Seventh Plan. Except for the drought year, 1987-88, foodgrains production seems to be stabilised around 150 million tonnes, but the Plan target of 178-183 million tonnes seems at this point beyond attainment. Within the foodgrains performance, the government reports a good growth rate in the case of the eastern states, particularly in rice production during 1986-87. Infact it attributes the whole of the increase in foodgrains production for that year to the increased yield of the Eastern states. As the drought has not affected most of the Eastern states (which, however, have had to deal with floods which affected about half their crops), the 1986-87 performance ought to be repeated in 1987-88. Aginst this positive feature, the long term decline in coarse cereals production, which is the diet of the vast poor majority of the country, from 28.2 per cent of total foodgrain in 1970-71 to 17.6 per cent in 1985-86 is disturbing. The marginal increase in 1986-87 should be further increased in the drought year as the land under dry farming increases, and what is more important is that the coarse cereals cropping area lost to wheat and rice to the extent of 12 per cent in the last 3 plans should be in part be restored. In this connection it is important that minor and non traditional oil seeds, which are and have been neglected, should be intensively developed to meet the growing demand for edible oils. Further, the shortfall in inputs is part of the poor agricultural policy referred to earlier, In 1985-86 the HYV area was 3.6 million hectares below target, the shortfall in the case of bajra and jowar being a high 1.3 million hectares, in 1986-87 the overall shortfall was a high 7 million hectares, that of the coarse cereals being 2.8 million

hectares. The shortfall in quality seed was 2.5 million quintals in 1985-86 and 1 million quintals in 1986-87 (due to lowering the target). The fertilisers shows a serious dip in the two years of 1.5 million tonnes, this is in part due to faulty forecasting of the demand. Some attention to estimating the demand for the various inputs, including creating an increased demand for them and equating and balancing supply within demand is called for. In the non foodgrain area, sugarcane and oil seeds are doing well, but the drought effect in Gujarat and Saurashtra on oil seeds output this year will frustrate the effort of the technology mission in oil seeds.

In the area of animal husbandry etc, the targets have been established at a low level and so the achievements have been near the targets except in the case of fisheries.

Table V

Heads	1985-86 Targets	1985-86 Actuals	1986-87 Targets	1986-87 Actuals	1987-88 Targets	1987-88 Actuals
Poultry	14.56	14.52	15.5	15.9	16.0	
Egg Nos. (billion)						
Cattle (milk million tonnes)	40.90	42.30	44.30	44	45	
Fish marine	19.00	16.92	18.5	18	19	
Income (lakh tonnes)	12.00	11.18	12.5	7.6	12	

Source: Annual Plans

In the In the case of irrigation, the performance in terms of potential created and utilisation of created potential was much better in the case of minor irrigation compared to major irrigation which continues to be dogged by serious slippages due to delays and cost escalation, the time taken over land acquisition and the very thin spread of resources.

This is despite the Seventh Plan priority to complete ongoing projects. The record is set forth in the table below:

Table VI

Head	1985-86				1986-87			
	Target		Actual		Target		Actual	
	Poten-tial	Use	Poten-tial	Use	Poten-tial	Use	Poten-tial	Use
Major Irri-gation (Million hectares)	0.633	0.624	0.564	0.513	0.69	0.58		
Minor Irri-gation (Million hectares)	1.7	1.3	1.6	1.18	1.73	1.26		

	1987-88				1988-89			
	Target		Actual		Target		Actual	
	Poten-tial	Use	Poten-tial	Use	Poten-tial	Use	Poten-tial	Use
Major Irri-gation (Million hectares)	0.7	0.59			4.1	3.9		
Minor Irri-gation (Million hectares)	1.81	1.38			8.6	7		

The total irrigation potential at the end of the second year of the Sixth Plan was 4.75 million hectares and the utilisation 3.8 million hectares. The Seventh Plan target as noted in the table is the creation of 12.7 million hectares of potential and 10.9 million hectares of utilisation. Given the increasing gap between the potential created and the utilisation in the case of major irrigation projects, there is need to push further forward with the Command Area Development programme, which, in years when the monsoon is normal, will

ensure optimal utilisation of the water and compensate in part for the escalating time and cost overruns of major irrigation projects during the Seventh Plan.

Industry

The Industrial growth rate in the Seventh Plan was targeted at 8 per cent on the 1970-71 base of 100. During the second year, the index has been revised by i) making the base 1980-81 = 100, ii) dropping some 90 odd industries which have not been reporting regularly, iii) including an equivalent 90 industries, particularly new industries like electronics and petro chemicals, iv) changing the weights, increasing them for growing industries like chemicals and chemical products, electrical machinery and reducing them for stagnant areas like cotton textiles, and v) including 49 items of small scale industry, starting with 18 of them for which information is available. The new series is also somewhat nearer the trends shown by the Annual Survey of Industries, but there are problems in compiling the new series. Its comparison with ASI with 1973-74 as base is in question, as the base seems to have been invented; only 25 per cent of small scale industry is included with no weights indicated; some parts of the increased rate of the new series is due to the new weights, as admitted by the government in the Rajya Sabha[7/], in the case of petro-chemicals whose weights were increased from 9.6 to 20.7 and electronics from 9.6 to 12.7; high growth industries are a few (26) according to DGTD data, and the link between high growth new industries and low growth traditional industries is the ignored problem of sickness. But the new series is overdue and welcome. Industrial growth as measured by either index shows an unsatisfactory profile - the 1970-71 base index showing low growth rates, the 1980-81 base index showing

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stagnant rates as the following table shows:

Table VII

Item	1980-81: 1970-71 Weight	base	1980-81 Weight	base	1986-87: 1970-71 base	1980-81 base	1987-88: 1970-71 base	1980-81 base	Plan target 1989-90 Gross Value added	Value of gross output
All industry	100	6.3	100	8.7	6.4	8.9			6.8	8.3
Mining	9.60	4.7	11.46	4.2	5.6	6.2			All Industry 7.8	
Manufacturing	81.08	6.1	77.11	9.7	5.1	9.0			All manufactures 8.0	
Electricity	9.23	8.5	11.43	8.5	9.6	10.3				

Source: Economic Survey & CMIE

There are two broad groups of factors accounting for the industrial growth rate for all 3 years being below the Plan target (on the basis of the 1970-71 base). The first is the inadequate availability of resources, referred to earlier, seen in the saving rates declining from 24.7 per cent of GDP in 1978-79 to 22.8 per cent in 1985-86, involving low private corporate savings at below 5 per cent of GDP and the decline in public sector savings from 10.9 of GDP in 1983-84 to 3.8 per cent in 1985-86, leading to its issue of bonds which diverts funds from other priority sectors: to this should be added slippages as in the Vizag steel plant which sends up its unit cost to Rs.5000 per tonnes: with even the 1985-86 resources generated by the public sector being due to the rise in administered prices. The second groups of causes is sluggish demand seen in the reduced offtake of consumers goods whose prices were pushed up by inflation caused by the increase in railway fares,

post and telecommunication charges, the prices of petroleum products which will result in the loss of Rs.1200 crores in consumers spending in 1987-88: this is only marginally compensated by the increases in DAs which affects only 10 per cent of the work force, and by the Fourth Pay Commission hikes, which by further sending up prices had merely a ripple effect.

One issue that the above table brings out is the lack of relation between the targets which are set and the actual achievement in terms of the 1970-71 base. This is particularly brought out in the case of engineering industries which are a part of the manufacturing sector as the following table shows:

TABLE VIII

Item	Sixth Plan		1985-86		1986-87		1987-88	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
All Industries	7.76	5.9	7.8	6.7	7.8	7.8		
All manufacturing	7.6	5.0	8.0	6.1	8.0	6.8		
Engineering	10.2	5.6	10.5	5.5	10.5			
Basic Metals	10.4	4.7	8.1	6.7	8.1			
Metal products	8.20	0.1	8.20	3.9	9.2			
Non electrical machinery	11.20	6.9	11.8	0.5	11.8			
Electrical machinery	10.02	3.6	12.5	6.2	12.5			
Transport equipment	10.15	9.1	10.8	10	10.8			

Source: Economic Survey, CSO & CIE

The disaggregated data in table VIII shows that except for transport equipment, the achievements are on the average one third to one half of the target. This is an area when the target can and should be precisely estimated. The present wide gap between the two, particularly in the case of metal products, non electrical machinery and electrical machinery makes a mockery of the Plan and the planning exercise.

Looking at the major sub sectors of the industry sector, coal records a production of 154.24 million tonnes in 1985-86 against a target of 158 million tonnes, a production of 165.85 million tonnes against a target of 166.80 million tonnes and a production of 39.40 million tonnes in April-June 1987-88 against a target of 183.5 million tonnes for the year, and a demand estimated at 192 million tonnes. Pithead stocks are 26 million tonnes in June 1987. The three year record is not bad, and it is likely that the Seventh Plan target of 226 million will be met. There are three problems that the coal sector has thrown up during this period. First there is a growing gap between the annual demand projection and the actual offtake which ranges between 5 and 10 per cent, due only in part to the mismatch in the major consuming areas such as steel, cement, fertilisers etc. Demand projection techniques need to be made more precise and improved. A second growing problem is the increase in low quality coal due to open cast mining which was 13.7 per cent of the total mined coal in 1951 but in the mid term of the Seventh Plan has attained 55.3 per cent, together with a reduced quantity of coking coal. Third despite coal prices having been hiked four times in the two and half years of the Seventh Plan, Coal India reports an accumulated loss of Rs.1690 crores.

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In regard to crude oil mining, the crude oil target has been achieved and exceeded in the first 2 years of the Plan at 30.18 million tonnes in 1985-86 (target 30.14 million tonnes) and 30.34 million tonnes in 1985-86. For 1987-88 the target is 30.46 million tonnes and till June 1987 the actual was 11.3 million tonnes. In natural gas, the 1985-86 production was 3150 million cubic metres and in 1986-87 3900 million cubic metres, and a target of 4200 million metres in 1987-88, with the actual being 1100 million cubic metres upto June 1987. During this period, the production record is good, but there are a limited number of new sources and wells being discovered and there are shortfalls in seismic surveys and achieving of drilling targets, which will affect future supplies.

Turing to manufactures, Annex I to this section on Industry gives the targets and performance for 1985-86, 1986-87, 1987-88 April-June (where available) together with the Seventh Plan target of 58 items. The data in the Annex shows that 32 items will reach their Plan targets, namely, steel, aluminium, petroleum, chemicals, caustic soda, soda ash, polythelene, formulations, sugar, vanaspati, yarn, cloth, jute, paper, newsprint, machine tools, mining machinery, pharmaceutical machinery, sugar machinery, textile machinery, steam turbines, earth movers, rail coaches, ship building, commercial vehicles, passenger cars, bicycles, ball and roller, sewing machines, PVC and VIR cables, storage batteries, refrigeration and electric fans: 9 items will exceed their Plan targets namely, copper, zinc, polyester staple, metallurgic machinery, cement machinery, diesel locos, rail wagons, scooters and TV receivers; on the other hand 13 items will be below their target, namely, fertilisers (nitrogenous), polyvinyl-chloride, DMT, drugs, leather footwear, tyres, tractors,

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hydro turbines, radio receivers, instruments, mass communication, telecommunication equipment, and computers.

Grouping the engineering capital goods industries, the decelerating growth rates and their relative stagnation is seen in the table below which is part repeat some of the data in Table VIII.

Table IX

	VI Plan Target	VI Plan Achievement	VII Plan Target	VII Plan Achievement	1985-86 (1970-71 base)	1985-86 (1980-81 base)
1. Basic Metals & Alloys	10.4	4.7	8.1		6.7	9.0
2. Metal products	8.20	0.1	8.20		3.9	9.2
3. Non electrical machinery	11.20	6.9	11.8		0.5	2
4. Electrical machinery	10.02	3.6	12.5		6.2	34.8
5. Transport equipment	10.15	9.1	10.8		10	3.2

	1986-87 (1970-71 base) (April - October)	1986-87 (1980-81 base) (April - October)	1989-90 Gross value added	1989-90 Value of product
1. Basic Metals & Alloys	3.9	2.4	5.5	8.1
2. Metal products	4	6.5	3.1	5.6
3. Non electrical machinery	2.9	-9.0	8.2	11.8
4. Electrical machinery	2.3	25.4	9.5	12.5
5. Transport Equipment	7.9	4.1	8.2	10.8

Source: Economic Survey, CSO, CIE.

The long term stagnation and low growth rates in metal products, non electrical machinery and electrical machinery industries raise questions as to the new industrial policy to which reference will be made later, but also the poor and inadequate use of licensed and installed capacity, particularly in these industries which have forward and backward linkages. Capacity use is declining by 10-15 per cent each year in the VII Plan to some 60-70 per cent in the capital goods industries. There is also the problem of even their licensed capacities being some 40 per cent to 400 per cent smaller than the International Efficiency Standards. In addition to the demand constraints operating to lower capacity use, there are also fiscal factors such as the value of depreciation permitted, the duty on import of materials like special steels, turbine blades, electronic assemblies and raw materials needed, lack of tax holiday or tax concessions to new plants, etc.

Some of the industrial responses to the New Industrial policy set forth in detail in the Mid Year Reviews of 1985-86, and 1986-87 8/ involving delicensing, broad banding, MRTP & FERA liberalisation, foreign investment applications, technology imports etc have been limited and not satisfactory during the first 3 years of the Seventh Plan as the following table shows:

Table X

Item	1984	1985	1986	1987 upto June
1. Foreign collaboration (Nos)	752	1024	958	
including financial collaboration (Nos)	151	238	242	
2. Foreign investment applications (Rs. crores)	113	126.86	106.90	

Item	1984	1985	1986	1987 upto June
3. Letters of Intent (Nos)	1064	1457	1130	168
4. Industrial licenses (Nos)	2740	4110	4167	139
grant	905	935	618	
registered				
DGTD	1915	1961	1162	
SIIA		1167	337	
5. Consents by controller of capital issues (Nos)	640	910	1071	110
Amount (Rs.crores)	1800	2529	6168	2889
6. Assistance sanctioned by finance institutions (Rs.crores)	5647.6	6613.8	3694.5	
disbursed (Rs. crores)	3501.6	4919.6	2388	

Source: Annual Plan and Department Report

The most positive response is in regard to the consents by the controller of capital issues which has increased by 60 per cent in 1986 over 1984. The increase in Industrial Licenses is not paralleled by a corresponding increase in Letters of Intent and is somewhat of a puzzle in view of the large scale delicensing which has been effected. One explanation is that they represent registrations which are not required in the case of intentions represented by letters of intent - as can be seen in the decline in the numbers of industrial licenses granted and increase in the registration with DGTD & SIIA. Foreign collaborations have not been much affected after the initial spurt in 1985. A disturbing facet is the sharp decline in both the assistance sanctioned and disbursed by the financial institutions in the second year of the Plan. On the whole the industrial response to

the new policy is not impressive, and raises questions as to whether its various components should not be reviewed to promote further industrial growth.

The third sub sector of the Industrial sector, power presents a not very satisfactory trend at the mid term point as table below shows:

Table XI

Item	1985-86	1986-87	1987-88 (likely)	1989-90
	Total Installed capacity			
Target (MW)				64,236.18
Actual (MW)	51766	5408	58974	
	Additional Installed capacity			
				VII Plan target
Target (MW)	4460	3396	4886	22,245.25
Actual (MW)	4223	2627	4016	
	Generation			
Target (billion units)	170	190	205	295
Actual (billion units)	170	187.5	205	
	Shortfall in power needed			
			(uptoSep-tember)	
Percentage	7.9	9.4	7	nil
	Plant Load Factor			
Union sector	61.9	72.3	(upto June)	
Private sector	57.5	62.83		
SEBs	49.2	50.74 51.7		
All India	52.4	53.2	54.4	
		Plan outlay		
Target (Rs crores)	5999.84	7405.71		34273.46
Actual	5718.99			

Source: Annual Plans & Seventh Plan

The most serious element in the above table is the growing shortfall in the power availability against its demand which will worsen sizably in the drought year 1987-88. Hydel reservoirs as at September 1987 held 10 b u less than in 1986 which means only 10 per cent power will flow from this source. This affects agriculture and industry and is one reason for their stagnation and low growth. It is from this point of view that the need to reorder investment priorities in the last two and half years of the Plan is once more emphasised. Another disturbing area is the low Plant Land Factor, particularly of the State Electricity Boards. The government pointed out to parliament that a 0.5 per cent increase in the plan load factor will reduce the power deficit by 4 per cent.[9] This is the direction in which power restructuring needs to move in the remaining period of the VII Plan. This will also make up in part for the slippage in installed capacity which involves about 10 per cent of the Plan's target falling into the next (VIII) Plan period.

Prices

The behaviour of prices during the first two years of the Seventh Plan has been one of the satisfactory features. In 1985-86 the average wholesale price index recorded a rise of 5.7 per cent, and the consumer's price index rose by 6.4 per cent. In 1986-87 wholesale price registered a lower increase of 5.4 per cent; the consumers' price index however averaged 8.8 per cent. There are technical reasons for these low rates of inflation. The first is money supply. In 1985-86, monetary expansion slowed to 16.1 per cent, due mainly to lower net RBI credit to government (which constitutes the major part of reserve money),

increase in SLR from 36 to 37 per cent, rise in CRR from 9 per cent to 9.5 per cent and establishment of the penal interest rate of 3 per cent on short falls. The budgetary deficits of the government of the Union and states were Rs.3600 crores in 1985-86 and were budgeted at Rs4000 crores in 1986-87. (In the revised budget for 1986-87 the Union deficit was revealed to be Rs8785 crores, the deficit of the state governments being Rs.275.5 crores). Money supply thus increased by 16.1 per cent in 1985-86 and 3.5 per cent in 1986-87. A second factor alongside of this overall decline in monetary expansion in 1985-86 and the marginal increase in 1986-87 was the careful supply management through the Public Distribution System involving imports of some key commodities like edible oil, sugar, rubber, non ferrous metals, steel etc. As a result the prices of some manufactures like the sugar group declined by -0.7 per cent for sugar and -13.2 per cent for khandasari in 1986-87, of the fuel group which declined from a 8.9 per cent rise in 1985-86 to 2.8 per cent in 1986-87, and some agricultural products which declined from 16.8 per cent to -2 per cent and pulses from 4 per cent to -8.9 per cent, despite some increase in agricultural support prices and prices of oil seeds and edible oils. But the rise in administered prices of steel, coal, petroleum products, railway fares etc will have a cascading effect on prices in the remaining plan years.

The other reasons for the low inflation rates in the first 2 Plan years are the continuing and increasing foreign trade deficit, the lack of purchasing power of the poor majority of which excludes them from the market, the growing effectiveness of black money operations which cover a little less than half of the economy, and the stagnation in savings due to the flight of capital to tax free havens abroad.

However 1987-88 which is the drought year has witnessed in the first 3 months April to July a rise in the whole sale price index of 6.7 per cent due not only to the price rise of seasonal commodities like pulses, fruits, vegetable oil seeds but also of manufactures and intermediates. The consumer price index for this period has already registered a rise of 7 per cent. The price record for the Seventh Plan is likely to be distorted by this 1987-88 experience.

Balance of Trade

The foreign trade and balance of payment accounts position during the Plan is a difficult one as the following table shows:

TABLE XII

(Rscrores)

Item	1985-86	1986-87 April-June	1986-87 April-March*	1987-88*	VII Plan 1985-86 to 1989-90 target
Exports	11011.76	10075.45	12550	14000	60,700
Imports	19759.43	15709.59	20063	22000	95,400
Balance of Trade	-8747.47	-4734.17	-7153	-8300	-34,700
Invisible net	2820.47		3513	3330	14,700
Balance of current Accounts	-5927		-4000	-4700	-20,000
Foreign Exchange Reserves	7384	7059.4	7660	7000	

* CMIE forecast

Source: Department of Commerce & RBI

The trade deficit for the first 3 years of the Plan is 69.9 per cent of Seventh Plan target, so that in the residual two years the deficit will exceed the target. The

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invisibles are on the other hand less than two thirds (65 per cent) of the target, with a possibility that invisibles will be even lower. Hence the balance of current account which is in deficit has already, in the first years, exceeded the 5 years deficit target. This is only in part reflected in our foreign exchange reserves position (which is the last line of the table), because showing the foreign exchange reserves in Rupees actually hides the extent to which the reserves have fallen, following the deterioration of the external value of the Rupee. The Rupee has on the average declined against the leading currencies (the US dollar, the German Deutsch mark, the Japanese yen and the British pound sterling) by 20 per cent per annum in 1985-86 and 1986-87 by 29 per cent against all currencies. But even in terms of the deteriorated Rupee, foreign exchange reserves are expected to decline in the third year of the Plan.

With regard to the exports in 1985-86 some 9 products led by gems and jewellery, iron ore and ready made garments show increases over the previous years, and in 1986-87 a similar group of 9 goods led by engineering goods, marine products and leather products record expansion over the previous year, whereas in both years some 14 products show a decline in export, those common to both years being crude, cotton fabrics, tea and oil cakes. For both years, 1985-86 and 1986-87, imports surged, particularly machinery and equipment by 15.1 per cent and 3 per cent respectively. Even though bulk imports of fertilisers, edible oils and crude declined in those 2 years, the increase in capital goods by 72 per cent (from Rs.347.3 crores to Rs.598.90 crores in 1985-86 and onto Rs.720 crores in 1986-87) kept imports high. This was due to the liberalised import policy, in relation to capital goods in 1985-86, and in the following year to the increased foreign loans

to compensate for inadequate domestic resources which resulted in the imports of machinery (at high cost as there are no tenders) and components and spares, written into bilateral and foreign collaboration agreements. From this point of view, the increased pledges at the Aid India Consortium in July 1987 for the year 1987-88 which is to the extent of two thirds of the Rs.5.5 crores in bilateral loans which must be expended in the lending country will reinforce the imports of high cost capital goods.

The balance of trade and payment at this mid point of the Seventh Plan thus, shows (a) a slow growth of exports, (b) a relatively rapid rise in imports, (c) a falling rate of inward remittances (with the NRI portfolio investments drying up), (d) growing capital and interest repayments, and (e) falling foreign exchange reserves, almost paralleling the falling of the external value of the Rupee.

Employment

The employment situation in the first two and half years of the Seventh Plan might begin with a review of the labour supply during the period. The firm bence mark for this is the 1981 census, which reported that under usual status, the workforce of 5+ increased by 122.58 million to 427.98 million standard person years (SPY), of 15+ increased by 119.86 million to 407.73 million (SPY) and of 15 - 59 increased by 110.04 million to 306.08 million (SPY). Under weekly status, the 5+ group increased by 117.54 million to 412.64 million (SPY), the +15 increased by 116.30 million to 397.84 million (SPY) and the 15 - 59 increased by 116.78 million to 367.01 million (SPY). Under daily status, 5+ increased by 112.66 million to 394.19 million (SPY), 15+ increased by 114.46 million to 376.14 million (SPY) and

15 - 59 increased by 102.33 million to 356.63 million (SPY). On this basis, the employment estimates for the Seventh Plan are 114.092 million for agriculture, 34.960 millions for mining, quarrying and manufactures, 12.624 million for construction, 1.498 million for electricity, 14.712 million for transport and communication and 49.165 million for other services. This means that during the 5 years of the Seventh Plan 40.36 million standard person years of additional employment will be created as against the increase in the labour force of 35 to 39 million and the backlog of those seeking employment of 9.20 million. The demographic assumption of the above estimates of the labour force is that the fertility rate which was 196.1 in the Sixth Plan will decline to 174 in the Seventh Plan. The couple protection rate during the Seventh Plan (1989-90) will be 39 per cent and life expectancy will be 64 years for males and 65.6 years for females.[10/]

There are no official annual data of the total amount of employment created or of the unemployment existing. If it is assumed that employment in the unorganised sector increased at the same rate of 1.8 to 2 per cent per annum as in the organised sector, and that the structure of employment continued at 1.4 per cent in the organised agriculture and 98.6 per cent in the unorganised agriculture, at 94.3 per cent in organised mining and quarrying and 5.7 per cent in unorganised mining and quarrying, and 23.1 per cent in organised manufactures and 76.9 per cent in unorganised manufactures, at 11.7 per cent in organised construction and 88.3 per cent in unorganised construction, at 77.4 per cent in organised electricity etc and 23.6 per cent in unorganised electricity, at 24.8 per cent in organised transport etc and 75.2 per cent in

unorganised transport, at 27.2 per cent in organised other services and 71.8 per cent in unorganised other services (as assumed in the Seventh Plan document)[11], the following employment profile for the Seventh Plan.

TABLE XIII

(million standard person years)

Item	1985-86	1986-87	1987-88	1988-89	1989-90
Agriculture & allied activities	98.03	99.99	101.98	104.01	106.09
Mining, quarrying & manufactures	28.49	29.05	29.63	30.22	30.86
Others including electricity, construction, transport, communication, administration, etc.	63.87	65.14	66.14	67.76	68.11

Source: Data of Seventh Plan and CSO as worked upon

The table shows an employment increase of 3.72 million in 1985-86, an increase of 3.79 million in 1986-87 and a projected increase of 3.54 million in 1987-88. For the VII Plan as a whole, the increase in employment aggregate 18.39 million which is far from the 40.36 million standard person years of employment generation forecast by the Seventh Plan document.

Finances

Some features of public finances in the first 3 years of the Seventh Plan need attention.

First there has been a noticeable decline in the rate of growth of total tax revenue from 21.3 per cent in 1985-86 to 14.9 per cent in 1986-87 and a projected 7.2

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per cent in 1987-88. The sharpest decline has been in the rate of growth of the receipts from Income tax at 22 per cent, 6.2 per cent and 2.9 per cent for the 3 years on personal income tax and from 22.6 per cent to 6.8 per cent and 6.2 per cent on corporate tax. The revenue from indirect taxes has been increasing from 47.6 per cent in 1950-51 to 79.8 per cent in 1985-86, 80.3 per cent in 1986-87 and 82 per cent in 1987-88.[12/] A similar trend is seen in the final record of the states during the Seventh Plan, where except for the small revenue from the agricultural income tax which increased by 17.2 per cent in 1985-86 over that of the previous year, direct tax revenues declined by -27.9 per cent over 1986-87 and by -13.4 per cent in 1987-88, forming 1-2 per cent of the total State revenue, while revenue from indirect taxes rose from 98 to 99 per cent in the 3 years: the income from sales taxes rose by 16-17 per cent, from excise by 13-14 per cent, from vehicles tax by 15-16 per cent and from stamps by 13-14 per cent.[13/]

Second deficit financing has been continuously increasing from Rs.4937 crores in 1985-86 to Rs.8285 crores in 1986-87 and an estimated Rs.5688 crores in 1987-88; market borrowing was Rs.6691 crores in 1985-86, Rs.7861 crores in 1986-87 and Rs.8371 crores in 1987-88.

Third non development expenditures of the Union and States have been continuously increasing from Rs.25206 crores in 1984-85, to Rs.27276 crores in 1985-86, Rs.31587 crores in 1986-87 and Rs.34116 crores in 1987-88. Within this increasing trend of non development expenditures, the balooning of defence expenditures is the most worrisome from Rs.250 crores in 1961-62, Rs.1200 crores in

1965-66, Rs.2472 crores in 1975-76, Rs3164 crores in 1979-80 to Rs.3867 crores in 1980-81, Rs.9287 crores in 1986-87, and Rs.12512 crores in 1987-88.

Fourth the taxes proposed in the budget and approved by parliament in the Finance Bill 1987 does not tell the whole story of the levies by the government on the national income of the country. There has developed a tradition to jack up administered prices a few weeks before the budget is introduced in parliament and on an increasing basis. Thus the revenue from these prebudget hikes amounted to Rs.1125 crores in 1985-86, increasing to Rs.1800 crores in 1986-87 and to Rs.2318 crores in 1987-88. There is also a certain loseness in budgeting which may account for a supplementary demand being introduced 3 months after the budget has been voted during every financial year. Further looking at the details provided to justify the demand which covers additional resources for defence, land acquisition for irrigation, subsidy to new industries in backward areas etc, the question can be posed as to why these expenditures were not foreseen at the time of formulating the budget which usually takes 3-4 months. The supplementary demand for 1985-86 amounts to Rs.8500 crores which was 17 per cent of the budget expenditure: for 1986-87 Rs.9186.04 crores, 18 per cent for the budget expenditure: and for 1987-88 upto August Rs.1929.09 crores being the first supplementary demand introduced in the parliamentary session after the budget was voted.

The means of financing the three Annual Plans in light of the targets established in the Seventh Plan document and the Long Term Fiscal policy might be reviewed as set forth in the table below, the details of which are included in Annex II:

TABLE XIV

(Rs crores)

Item	1985-86	1986-87	1987-88	target for the plan Rs crores at 1984-85 prices
Plan outlay	34,353	40,811	44,099	
BCR	-8 Union +813 states	-1496 Un Union +1401 states	-2968 +1401	- 5249
Construction from Public Enterprises	4811	5034	5325	35485
Market borrowing net	6691	7861	8371	30562
Small savings	4800	4661	5372	17916
State Provident Funds	1296	1500	1688	7327
Term loans from Financial Institutions	814	807	852	4639
Miscellaneous, capital receipts	3750	3161	5157	12618
ARM	2552	4776	8426	44702
Net capital inflow from abroad	2720	3580	3654	18000
Deficit financing	4937	8285	5688	14000
Aggregate Plan financing	34353	40811	44099	180000

Source: Planning Commission

The financing of the Plan set forth in the table shows several disturbing features. First the annual financing data is set forth in current prices and not in 1984-85 prices, which means that the Plan target of Rs.180,000 crores in 1984-85 prices will not be met, as earlier noted. Second in the

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10 means of financing the Plan, there is no contribution from the taxes amounting to 24 per cent of the national income (there will be some from proceeds of state taxes). Third the negative nature of Balance from Current Revenues at the Union level recorded in the table is one indication of Plan resources being used to finance non Plan expenditures. Fourth the record on ARM during the first 3 years shows that there will be a short fall of some 25-30 per cent at Rs.11000-12000 crores on this item, as also on the contribution from public enterprises. Finally if the fact that the deficit finance has in the first 3 years exceeded the Plan target by 30 per cent is taken into account and the major means of financing the Plan is seen to be market borrowing and deficit financing, the Plan becomes a source of inflation. Under these conditions, some protection to the Seventh Plan can be afforded through:

a) increasing tax revenues by a return to the pre 1985-86 position, as earlier suggested.

b) freezing non plan expenditure at the 1985-86 level as also suggested, through

1) reducing food and fertiliser subsidies, and raising issues prices of foodgrains and supply price of fertilisers to farmers,

2) reducing defence expenditures through cost effective means,

3) ensuring that states' expenditure on public administration and on non development items are reduced, and

4) increasing the financial returns from the public enterprises, cutting budgetary support to non core

enterprises and drastically reducing the losses on the State Electricity Boards and irrigation systems.

Poverty and Inequality

There are no annual data on the state of poverty in the country. Using the revised 32nd round and the provisional 38th round estimates of NSS, the Planning Commission states that the poverty ratio declined from 48.3 per cent of the population in 1977-78 to 37.4 per cent in 1983-84. The assumptions and methodologies on which these estimates are based raise many questions,[14/] but these are the only poverty statistics available for the pre Seventh Plan period, and are used by the Commission as the base for the Seventh Plan poverty forecasts. During the Seventh Plan, the Planning Commission has set a target of the poverty ratio declining from 36.9 per cent to 25.8 per cent. This means that in one year, 1984-85, the poverty ratio has declined by 0.5 point, that is by 1.2 per cent. Using the agricultural growth rates of 1.4 per cent, 0.2 per cent and -3 per cent and the industrial growth rates of 6.2 per cent, 6.4 and 6.0 per cent and treating them as proxy for rural and urban growth ratio for the first 3 years of the Plan, assuming a linear relation between incidence of poverty and mean income level (which is a rather questionable assumption), it can be suggested that due to the growth factor the poverty ratio declined by 1.2 per cent, 0.1 per cent and rises by 2 per cent during the 3 years of the Seventh Plan, 1985-86, 1986-87 and 1987-88. On the target oriented programmes, the government reports[15] a number of changes suggested by the concurrent evaluation introduced in 1985-86, involving for IRDP the replacement of uniform allocation to

blocks by selectivity based on incidence of poverty, the identification of the poorest of the poor as households with an annual income below Rs.4800 (compared to the earlier Rs.6400), the involvement of people's representatives in identifying beneficiaries, the provision of supplementary aid to those who could not cross the poverty line during the Sixth Plan: replacing TRYSEM by Rural Training and Technology Centres (RTTCs), increasing the monetary allocation to NREP and RLEGP, adjusting the foodgrain allotment to consumption rates, and relating all these programmes to land reform. There are varying evaluations of how effective these reforms have been, the governments' assessment admitting that the planning of the programmes have been poor, that contractors are still used on NREP & RLEGP programmes, and that the assets created are not permanent. The reports of the Department records the targets and attainments of IRDP & NREP as follows: Under IRDP in 1985-86 against a target of assisting 24.7 lakh families 30.6 lakhs were assisted, in 1986-87 against a target of 35 lakh families 38 lakh families were assisted: and in 1987-88 the target is 40 lakh families. Under NREP with Rs.530.80 crores and 5.8 lakh tonnes of foodgrains, 316 million mandays of employment were generated in 1985-86 against a target of 228 million mandays, in 1986-87 the target is 256.3 million mandays. Taking these actuals and the rather mildly stated limitations into account the reduction in the poverty ratio due to these programmes aimed at the poor may be placed at 0.8 per cent, 1 per cent, and 1 per cent. These rates of reduction in the poverty ratio due to the growth and beneficiary oriented programme factors are proceeding at (2.1 per cent) above a third of the poverty reduction target for the Seventh Plan. Further the

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percentage reductions are estimated on a static population base. If the growth of population is taken into account, there may be little or no net reduction. The record on inequality during the first 3 years of the Seventh Plan is a little more precise in regard to the rural areas and agriculture on which some official data are available, which is not the case on urban and industrial asset ownership. The table below sets forth the data for the rural areas:

Table XV

Bottom 30 %	% of rural assets	Top 30 %	% of rural assets
1961-62	5		72
1971-72	4		76
1981-82	4		78

(acres)

	1985-86	1986-87	1987-88
Land declared as surplus	7,608,131	7,802,331	
Land taken over	5,820,723	6,024,421	
Land distributed	4,465,960	4,664,820	

Source: RBI & Annual Reports Department of Rural Development

There are several comments to be made on the data in the above table. First the worsening of the distribution of rural assets as between 1961-62 and 1971-72 may be noted. In 1981-82 the bottom 39 per cent of rural households own 5 per cent of rural assets, while the top 5 per cent own 46 per cent of rural assets, further to the data given in

the table. Second the Departments' Annual report admits that based on the results of the Agricultural census for 1980 and the NSS data, the land that should be declared surplus is 216.52 lakh acres and not 76.78 lakh acres as stated in the table, and used as the base by the government for this programme. Third the skewed pattern of land holding worsens over time. Between 1976 and 1981 operational holdings increased from 81 million to 89 million and marginal holdings (below 1 hectare) increased from 44.5 million to 50.5 million in 1980-81 these holding increased to 57 per cent of all holdings, with the operating area of 12.2 per cent of the total area, small farmers owning 1 to 2 hectares having 18 per cent of holdings, and cultivating 14.1 of the total land. With 175 million hectares and 96 million rural households, the operational land per household works out to 1.8 hectares - which is inadequate to feed a family of 5.5 persons and is one of the reasons for mass rural poverty.

ANNEXURE I

Item	1985-86 Target	1985-86 Actual	1986-87 Target	1986-87 Actual	1987-88 Target	1987-88 Actual (April-June)	1985-86 to 1989-90 VII Plan target
Steel (million tonnes)	9.80	9.87	11.0	7.2	12.10	3.7	11.14
Aluminium (lakh tonnes)	3	2.6	2.9	2.4	2.7	0.7	4.9
Copper (lakh tonnes)	0.44	0.33	0.44	0.31	0.44	0.11	0.42
Zinc (lakh tonnes)	0.69	0.72	0.70	0.80	0.78	0.30	0.89
Cement (million tonnes)	34	33.10	37	36.3	42.5	9	49
Petroleum (million tonnes)	42	42.9	44.9	44	45	10.93	45.4
Caustic Soda (lakh tonnes)	7	7.34	7.9	7.3	8	1.92	9.5
Soda Ash(lakh tonnes)	9.34	9.13	9.8	9.6	9.9	4.1	11.4
Fertilisers(nitrogenous)(million tonnes)	4.4	4.3	5.1	5.4	6.1	0.95	6.5
Polythelene LD(lakh tonnes)	1.1	0.96	1.0	1.0	1.2	-	1.8
Polyvinyl Chloride (lakh tonnes)	1.2	1.07	1.1	1.0	1.5	-	2.33
DMT (Lakh tonnes)	0.7	0.46	1.0	0.63	1.2	-	1.7 - 1.9
Viscose Staple (lakh tonnes)	1.1	0.90	1.1	1.0	1.2	0.3	1.74
Polyester Staple (lakh tonnes)	0.42	0.42	0.87	0.80	1.0	0.25	0.77-0.8
Drugs (Rs crores)	400	416	450	462	500	137	808
Formulations(Rs crores)	1827	1900	2000	2108	2300	608	3775
Sugar(million tonnes)	7.20	6.40	8.4	8.5	8.5	-	10.2
Vanaspathi (million tonnes)	1	0.90	1.1	1.0	1.2	0.33	1.2
Yarn(million kg)	1425	1473	1500	1526	1520	395.7	1540
Cloth (mill) (million metres)	4000	3400	13000	3203	4000	780	4500
Cloth(decentralised) (million metres)	8600	8600		9774	9000	2282	10000

..2...

Item	1985-86 Target	1985-86 Actual	1986-87 Target	1986-87 Actual	1987-88 Target	1987-88 Actual (April-June)	1985-86 to 1989-90 VII Plan target
Jute (million tonnes)	1.44	1.40	1.45	0.98	1.44	-	1.66
Leather footwear (million pairs)	20	15	183	22	25	-	44
Tyres (million)	12.23	12.34	14	13.5	18	4.83	23.3
Paper & Paper Board (million tonnes)	1.4	1.5	1.6	1.57	1.6	0.36	1.8
Newsprint (lakh tonnes)	2.3	2.4	2.65	2.3	2.9	0.52	3.4
Machine tools (Rs crores)	375	291	330	315	377	94.4	500
Mining machinery (Rs crores)	62	43	50	44	46	10.3	75
Metallurgical machinery (Rs crores)	64	90	95	99	109	26.2	75
Cement machinery (Rs crores)	60	96	105	115	145	32.4	80
Chemical machinery (Rs crores)	200	168	175	184	200	48.92	220
Sugar machinery (Rs crores)	55	43	50	47	53	14.6	60
Textile machinery (Rs crores)	440	351	440	251	261	63.4	500
Steam Turbines (Million KW)	3.12	1.99	3.36	2.8	3.3	-	3.7
Hydro Turbines (Million KW)	0.30	0.26	0.45	0.35	0.6	-	1.4
Earthmovers (Nos)	2200	1844	2000	2085	2358	-	2400
Tractors (Nos)	100	76	80	77	73	20	135
Diesel locomotives (Nos)	157	126	171	160	160	38	160
Rail coaches (Nos)	1282	1277	1300	1280	1400	340	1900
Railwagons (000)	12.50	13	20	18	20	5	20
Shipbuilding (DWT)	1.3	1.2	1.16	1.0	1.2	-	1.629
Commercial vehicles (lakh Nos)	1.10	1.03	1.1	0.9	1.2	3	1.6
Passenger Cars (lakh Nos)	0.93	0.88	1.12	1.2	1.3	3	1.3

..3...

Item	1985-86 Target	1985-86 Actual	1986-87 Target	1986-87 Actual	1987-88 Target	1987-88 Actual (April-June)	1985-86 to 1989-90 VII Plan target
Scooters (million)	1.073	1.234	1.5	1.3	1.4	3.2	1.6
Bicycles (million)	5000	5.5	5700	5800	6300	1120	8000
Ball & Roller (million)	57	58	70	64	71	-	80
Servicing machines (lakh Nos)	2.8	2.9	3.0	3.0	3.3	-	4
PVC & VIR Cables (million metres)	630	481	500	490	550	-	700
Storage Batteries (million Nos)	2.2	2.2	2.3	2.2	2.4	0.5	2.8
Refrigerator (lakh Nos)	6.0	6.4	7	6.8	7.5	2	9
Electric Fans (millions)	5.1	5.2	5.4	5.4	5.7	-	6.5
Radio Receivers (Rs crores)	125	150	200	170	250	60	270
TV Receivers (Rs crores)	815	990	820	850	850	210	850
Instruments (Rs crores)	110	130	120	130	150	-	280
Industrial Electronics (Rs crores)	275	322	300	310	350	75	540
Mass. Communication (Rs crores)	30	15	40	22	60	-	240
Telecommunications (Rs crores)	365	470	550	525	800	-	3100
Computers (Rs crores)	180	210	230	250	300	65	670

(- is not available)

Source: Annual Plan, Department Reports and Seventh Plan

ANNEXURE II TABLE XVI

FINANCING THE SEVENTH PLAN AND ANNUAL PLANS 1985-86, 1986-87 AND 1987-88 OF UNION AND STATES

(Rs. Crores)

(1)	Seventh Plan (Estimates) At 1984-85 prices) (2)	1985-86 (Accounts) Provisional Actuals) (At current prices) (3)	1986-87 (Revised Estimates) (At current prices) (4)	1987-88 (Budget Ests.) (At current prices) (5)	Seventh Plan (Ests.) (At 1984-85 prices) (6)	1985-86 (Pre-Actuals) (At current prices) (7)	1986-87 (Latest Ests.) (At current prices) (8)	1987-88 (Annual Plan (At current prices) (9)
I. PLAN OUTLAY	99302	20737	24502	25407	80698	13616	16309	18692
Financing of the Plan								
II. Domestic Resources at 1984-85 rates of taxation, tariffs & fares:								
1. Balance from Current revenues	(-)12011	(-)526	(-)1498	(-)2968	6762	2747	2466	1401
2. Contribution from Public Enterprises:								
a) Centre								
i) Railways	4225	872	1061	784	-	-	-	-
ii) Tele-Communications	1729	536	463	897	-	-	-	-
iii) Other Central Enterprises	23941	2988	2553	2585	-	-	-	-
iv) Extra-budgetary Resources (domestic)	7559	799	957	1576	-	-	-	-
TOTAL (a)	37454	5195	5034	5842	-	-	-	-

..2..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
b) STATES								
i) State Electricity Board	-	-	-	-	(-) 1569	(-) 235	(-) 376	(-) 379
ii) State Road Transport Corpn.	-	-	-	-	(-) 415	(-) 115	(-) 126	(-) 109
iii) Other Enterprises	-	-	-	-	15	(-) 34	(-) 51	(-) 26
TOTAL (b)	-	-	-	-	(-) 1969	(-) 384	(-) 553	(-) 514
Total - 2 (a + b)	37454	5195	5034	5842	(-) 1969	(-) 384	(-) 553	(-) 514
3. Issue of Bonds by Public Enterprises	-	315	1364	1500	-	-	-	-
4. Market Borrowings	20620	4884	5300	6300	9942	1621	1798	2071
5. Small Savings	6377	1389	2100	2200	11539	2900	2561	3172
6. Provident Funds	2300	495	574	635	5027	843	976	1053
7. Miscellaneous Capital receipts (Net)	19809	6312	4506	7015	(-) 7191	(-) 2348	(-) 1345	(-) 1858
8. Negotiated Loans	-	-	-	-	4639	807	887	852
III. ADDITIONAL RESOURCE MOBILISATION (NET):								
(i) 1985-86 measures								
a) Government	-	469	592	643	-	923	1100	1205
b) Public Enterprises	-	792	630	662	-	262	479	650
TOTAL (i)	-	1261	1222	1305	-	1185	1579	1855

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ii) 1986-87 measures								
a) Government	-	-	447	467	-	-	737	848
b) Public Enterprises	-	-	661	1211	-	-	130	284
TOTAL (ii)	-	-	1108	1678	-	-	867	1132
iii) 1987-88 measures								
a) Government	-	-	-	322	-	-	-	1395
b) Public Enterprises	-	-	-	-	-	-	-	739
TOTAL (iii)	-	-	-	322	-	-	-	2134
TOTAL - III	22490	1261	2330	3305	22212	1185	2446	5121
IV. Total Domestic Resources (At current rates)	97039	19325	19710	23829	50961	7371	9236	11398
V. Net Inflow from abroad	18000	2720	3580	3684	-	-	-	-
VI. Deficit financing	14000	4937	8285	5688	-	-	-	-
VII. AGGREGATE RESOURCES:	129039	26982	31575	33201	50961	7371	9236	11398
VIII Assistance for State plans	(-) 29737	(-) 6245	(-) 7073	(-) 7794	29737	6245	7073	7294
IX. Resources available for Plan:	99302	20737	24502	25407	80698	13616	16309	18692

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The 1987-88 mid year review is dominated by the national drought, which has resulted from all but 10 meteorological subdivisions having deficient or no rains during the southwest monsoon. The 1987 kharif crop is lost and the hope is that the moisture left by the September and winter rains will save the rabi crop and bring it to the level of the last rabi crop.

This means that against the 1986-87 level of foodgrains production of 151 million tonnes, the 1987-88 foodgrains production could be 131 million tonnes to 140 million tonnes, which means against a 1 per cent increase in 1986-87, in 1987-88 foodgrains production could fall by -8 to -9 per cent. Other agricultural non food crops like groundnuts and other oilseeds, cotton and sugarcane will decline, while jute, measts and plantation crops grown in the East, which had a normal monsoon will remain unaffected, so that agricultural production as a whole which rose by 0.2 per cent in 1986-87 is likely to record a negative growth of -3 to -4 per cent.

Manufactures have done well in 1986-87 at 9 per cent, but here again the backward and forward linkages between agriculture and manufactures, with agriculture providing manufactures with cotton, cane, oil seeds etc and manufactures providing agriculture with fertilisers, pesticides, power and agricultural tools, and equally with the decline in rural (farm income, will mean that manufactures in 1987-89 could record a low growth rate of 6 per cent (on the 1980-81 base), while because mining will not be seriously affected, the industrial growth will record a lower fall to 6.9 per cent. This allows for crude oil production maintaining its 1986-87 level but electricity growth declining because of the half empty hydel reservoirs.

All this means that the overall economic growth which was 4.5 per cent in 1986-87 could drop to 1.5 to 2.5 per cent in 1987-88, reflecting the sharp decline in the primary and the moderate fall in the secondary sector.

The price situation is disturbing. Against the rise in whole sale prices of 5.3 per cent in 1986-87, the 1987-88 inflation rate in whole sale prices will be 10-11 per cent (it is already 7.5 per cent at August end) and consumer prices at 11-12 per cent - with prices of food articles and necessities rising around 50 per cent above the general index.

The trade deficit in 1986-87 is heavy at over Rs.7500 crores. In 1987-88 it will be larger because of the import of some items like edible oils and the reduction in agri-culture exports caused by the drought, so that unless there is a realignment and cut back of bulk imports, including capital goods and machinery, the trade deficit could pass Rs.8000 crores. Given the falling foreign remittances, the balance of payments will become heavier in deficit.

The employment situation has not been encouraging in the first two years of the Seventh Plan, falling short of the established targets by 20-30 per cent each year. With the push being given to employment as drought relief on which the bulk of the Rs.1100 crores of drought relief should be spent, the employment statistics may improve in 1987-88.

But this will represent no improvement in both the poverty status of the majority of the people, many of whom will be pushed down below the poverty level because of the sharp rise in the prices of the goods and services -

they use. Equally the inequalities in society will worsen as land reforms continue to stagnate, as the savings will come only from the top 30 per cent of society, and with growing black money operations and the flight of capital from the country to tax free havens like Switzerland.

The Economy and the Annual Plan

The Plan reports an economic growth rate of 4.5 per cent for 1986-87. At this mid year point, the forecast of the growth rate for 1987-88 must take account of the national drought as well as one of the facts thrown up by the micro economic tables developed by CSC for three and half decades (1950-51 to 1985-86) at 1970-71 and current prices,[16] which is that the GNP growth rate turns negative every six years. This negative growth year is 1987-88. On both these counts the growth rate for 1987-88 might be forecast at 1.5 to 2.5 per cent.

There are several factors concerning the performance of the economy and the Plan in the last full year (which was also a normal year), 1986-87, some parts of which will be repeated in 1987-88.

First in 1986-87, the commodity producing sectors - agriculture, mining, manufactures, electricity generation - grew at 3 per cent well below the economic growth rate of 4.5 per cent, which was due mainly to the growth of the banking and insurance sector by 11.5 per cent and public administration and defence by 12.5 per cent. This imbalance also means that the output of physical goods kept ahead of population growth (2 per cent) by a modest margin.

Second the financing of the Plan for 1986-87 as well as that approved for 1987-88 pose several problems. For both years, in the absence of tax revenues and resources and adequate public savings, and heavy increasing reliance has been placed on market borrowing and deficit finance. Market borrowing was increased by 8.51 per cent in 1986-87 (from the previous year) and by 18.86 per cent in 1987-88. As a consequence as against the Long Term Fiscal Policy (LTFP) provision of the internal debt being 5.6 per cent of GDP in 1986-87 and 5 per cent in 1987-88, it was 7.8 per cent in 1986-87 and 7.3 per cent in 1987-88. Against the LTFP provision of savings of public enterprises being 3.2 per cent of GDP in 1986-87 and 3.7 per cent in 1987-88, for both years these savings are stagnating at 2.5 per cent. On deficit finance, against an annual average of Rs.2800 crores provided in both the Seventh Plan document and LTFP, that for 1986-87 was Rs.8285 crores and for 1987-88 Rs.5688 crores which despite the Finance Minister's pledge to maintain it at that level is likely to be doubled in order to fulfil the plan and meet the costs of the drought.

Third the savings and investment dimensions of 1986-87 Plan need a comment. The increased rate of savings in the domestic private sector by 1 per cent of GNP and the household sector by 1.8 per cent of GNP in 1986-87 (which will be analysed later) is due to the shift in money incomes in favour of the trading, merchant, upper salaried and business classes. As for the investment in that year, which used the savings, there are structural issues raised in the more rapid increases of the price deflators for capital formation and the sharp increase in stock build up, which reduces the rate of net domestic fixed capital formation to below 12 per cent of GNP, and drains off resources from use of the higher

price deflators for capital goods compared to GNP and NNP deflators. The serious problem is that such inventory build up demands an output growth in excess of demand, resulting in a large scale waste of the investible resources.

The trend towards marginalisation of the Plan referred to in the last two mid year reviews, continued in 1986-87 and 1987-88. In 1986-87, the commission was not directly involved in the decisions to delicense 27 new categories of industries and 82 bulk drugs, to dereserve certain items from the small scale sector, to extend a number of delicensed industries to MRTP and FERA companies; but it drew the 'right' conclusion when it stated that the industrial market should concentrate on the top ten per cent of society, composed of some 80 million persons, where there is no distinction between essential and non essential commodities and where the demand for their consumer goods, and behind it the derived demand for the intermediate and capital goods has to be met, even if the poor majority have to go without basic necessities like nutrition, housing, clothing, health care, sanitation and adult and primary education, because they are not part of the top decile. There is no interest in enlarging the market and demand that a change in the distribution of income and assets would bring about.

From this marginalisation of the Plan, the World Bank took the next logical step in 1986-87 in developing its outline for the Indian economy, based on its impatience at the slow pace of the 'liberalisation' begun as part of the conditionalities of IMF's Extended Financial Facility. The Bank outline for India proposed: a) a devaluation of the Rupee, ignoring the 25 per cent devaluation against SDR, and the higher level against the Deutsch Mark, the Japanese Yen, the US dollar and UK pound sterling that

has already taken place as well as the lessons of the 1967 devaluation, where, because of the inelasticities in the demand and supply conditions, there was neither an increase in exports nor a cut in imports; b) replacement of all quantitative restrictions on imports by tariffs against excessive imports, which tariffs should be phased out in 5-7 years, a proposal going well beyond the Narasimhan Committee report which recommended a gradual and selective replacement of physical controls by fiscal ones;[17] c) the scrapping of indigenisation which is termed an extreme form of the non tariff barrier, and which goes against the core of the Industrial policy since the second plan; d) the acceptance of an increasing debt service ratio which was 8.6 per cent in 1980-81, 23 per cent in 1985-86 and 26 per cent in 1986-87 which is on all fours with the remaining proposals; e) the further increase of the asset limits for MRTP, removing the criteria of market dominance and the restrictions on inter-connected undertakings which would result in worsening of asset ownership distribution; f) the dereserving of items reserved for the small scale sector and raising its asset limits, which will kill of small scale sector; and g) the phasing out of industrial licensing over a period of 5 to 7 years, which will result in more monopolies and no planned priorities.

That an outside agency should formulate the country's basic industrial policy is serious enough, but what is even more surprising is the Planning Commission secretariat picking up the major suggestions in the World Bank proposal and presenting them in a 1987-88 draft note on New Industrial Policy Initiatives for the Eighth Five Year Plan for discussion by the full commission. The note proposes: a) restricting industrial licensing only for MRTP and FERA companies and for investments exceeding Rs.50 crores and b) dropping

the limitations on 'inter connections' in MRTP companies. This is the heart of the World Bank proposal, as against which the several basic national purposes that industrial licensing is to serve should be recalled. The most important purpose was to ensure that the pattern of industrial development was not decided by market forces but in conformity with Plan priorities. Licensing was also aimed at curbing concentration of power, at separating public and private sector enterprises in accordance with the norms set forth in the Industrial Development and Regulation Act, and at promoting the development of the small scale sector and the industrially backward regions. The proposal to do away with licensing in continuation of the liberalisation/dilution process begun in 1966 under the IMF/World Bank urging starting with allowing industries to increase in excess upto 25 per cent of their licensed capacity, going on to enabling large houses (MRTP) and foreign capital (liberalised FERA) to enter the core sector, to legalising the unauthorised capacity that had been created and to the more recent delicensing, the setting of minimum economic capacity, automatic capacity reendorsement etc. The removal of interconnections will reduce MRTP companies to less than 200. The question now before the country is clear: what kind of industrial development is desired and what will promote such development? The questions need to be debated and resolved by the people of the country, by Parliament and the government which is responsible to it.

Fiscal Policy

1986-87 witnessed some major macro economic policy initiatives. A document called the Long Term Fiscal Policy was issued and became the focus of a nation-wide debate on the Seventh Plan's fiscal and financial policy. It dealt

with and forecast the trends in Plan and non Plan expenditures during the Seventh Plan and means of financing them. Some parts of its forecasts have been shown to be under-estimates, as noted earlier in regard to market borrowing, deficit financing, savings from public sector enterprises, and tax revenues, and the drought this year will worsen this factor. As a means of putting some order into Plan financing, however, it was a sound move.

Related to the Long Term Fiscal policy, were two documents on administered prices and agricultural support prices.[18] The former was meant to deal with the problems caused by the continuous (in most cases pre budget) hiking of administered prices. Its statistical data was meant to show that inflation was caused more by non administered prices than administered prices. Given the rise in the cost of inputs, including wages, the choice presented was the choice between raising the price or subdising the loss by an increase in the budgetary deficit, with a preference to the latter as it was a once for all rise and had a lesser impact on the rate of inflation. What was not fully explored was the possibility of absorbing part or all of the increase in costs by increased productivity and some cost cutting, as in the case of the size of the inventory and technological innovation. The documents on agricultural prices was more of an explanatory statement of the factors that go into the decision on support prices, which begins with a carefully prepared technical base of costs averaged over the whole sub-continent and ends with political judgements by the Union and the major producing state governments on the price that is announced. Here again the major step forward is the promise to announce the support price well before the sowing season for each crop.

Also in 1986-87 was the Report of the RBI committee on the monetary system[19], (for short known as the Sukhumoy Chakravarty report) which dealt with a wide range of monetary and credit policies in order to provide them with an understandable and orderly frame work. It is set forth within a given monetary policy, the structure of interest rates, levels of entitlement of refinance, and norms for the fixing of CRR and SLR. The report states that deficit financing - that is the volume of bank credit to government - rather than the budget deficit is the material base for the rate of inflation - the question of how much government borrowing is from the RBI and how much from outside it, not being very relevant. It recommends and the government accepted that the amount of deficit financing should be made known at the time of the budget presentation. Its analysis of the structure of interest rates leads to its recommending its simplification, given the fact that there are 70 categories of advances with interest rates ranging from 4 per cent as DRI to 17.5 per cent for advances against commodities subject to selective credit control. In this restructuring, the committee recommended that deposits of 5 years or more should have a real return of 2 per cent per annum, with deposits of 1 year having a marginally positive rate. (The RBI's subsequent decision abolishing deposits of 5 years and above and fixing the maximum rate at 10 per cent for 2 years and above is contrary to the report's recommendation, which probably was aimed at reducing the interest cost to the government and favouring the high tax payers). The committee also made recommendations to raise the rates of government securities including that of treasury bills whose rate of 4.6 per cent was fixed back in July 1974. Because of this low and stagnant yield, no secondary market in Treasury Bills has developed so far, but now replacement of the system of Tap sales by the auction system makes

treasury bills rate flexible, helps banks manage their short term liquidity and promotes the development of a secondary market. On the other hand, the rise in the rates on government securities will increase the already heavy interest burden of the government, and as interest payments are payments made on past loans to the richer sections will shift income distribution against the poor. The committee's recommendation on government and RBI stabilising annual monetary targets, which has been accepted by the government, should be based on a range to give the flexibility necessary to meet unforeseen circumstances, and could, as in US, UK, Japan and France, bring inflation under control through its 'announcement effect' by reducing wage claims and public sector deficits.

On taxes and the budget, the year saw a proposal on reform of direct taxes[20] which aimed at rationalisation and simplification of the tax legislation which had increased as far as the Income tax Act is concerned from 298 sections and 4 schedules in 1961 to 621 sections and 12 schedules with each schedule subdivided into alphabets (which are being exhausted). The rationalisation requires agreement on (a) the accounting year, (b) the entities subject to assessment, (c) the concept of income, and (d) other matters relating methods of assessment, penalties for default, provisions for exemption and deduction and the appellate procedures. Similar simplification of wealth tax and gift tax procedures are proposed. The results of this review has resulted in a draft Act for consideration of the Parliament.

Emanating from this discussion was the decision to set up a committee on Expenditure Taxation (whose report made in early 1987 has not yet been released by the government). The report is believed to point to the pluses and minuses of

expenditure taxation. On the plus side, it is a levy on spending which is the claim to resources rather than earning which is creation of resources; it can be graduated according to one's spending; it can draw "black money" into its net unlike income taxation, which is urgent as according to the BV Christiansen study published by IMF a sizeable part of the black money is in the form of deposits by Indians in tax free Swiss bank accounts which rose by nearly 1,149 million Swiss Francs from 788 million Swiss Francs in 1977 to 1937 million Swiss Francs in 1984 which is Rs.1,135 crores. On the negative side, apart from pointing out the administrative complexities of computing expenditures, it states that when spending is approached partially through commodity taxation or through exemption of savings from income taxation, such concessions accrue to expenditure tax elements which will have a regressive effect. This study on Expenditure taxation seems to have had one positive effect on the 1987-88 budget in its use of the concept of net savings in its tax proposals. The concept should have been extended to all savings and not only to new savings, as this distinction will lead to endless manipulations to show old savings as new ones.

On the budget, the procedure to break the secrecy surrounding the budget formulation and presentation was carried a step further with the government's statement providing a preview of the 1987-88 budget in the monsoon session of parliament, which showed a sharp increase in items of non plan expenditure, particularly on defence, and interest payments. The non Plan expenditure if rearranged to include both revenue and capital account takes on an even more serious aspect, involving a deficit of over Rs.2500 crores as the table below shows:

TABLE XVII

(Rs. Crores)

	1979-80 (Actuals)	1985-86 (Actuals)	1986-87 (R.E.)	1987-88 (N.E.)
1. Non-Plan Expenditure	10598	29705	37396	39266
1.1 Interest Payments	2210	7503	9550	10650
1.2 Defence expenditure of which	3164	7987	10194	12572
1.2.1 Capital outlay	262	967	1227	3978
1.3 Subsidies	1543	4929	5579	5605
of which				
1.3.1 Food	600	1650	2000	2000
1.3.2 Fertilisers	526	2050	1893	1910
1.3.3 Export	361	605	788	870
1.4 Grants to States & Union Territories	624	1807	1606	1689
1.5 General Services	1079	2894	3603	4121
of which				
1.5.1 Police	259	631	868	975
1.5.2 Pensions	247	681	961	1182
1.6 Economic Services	559	963	1657	1510
of which				
1.6.1 Science, Techno-logy & Environ-ment	133	302	347	360
1.7 Social Services	407	818	1094	1029
of which				
1.7.1 Education, Sports & Youth	185	301	346	347
1.7.2 Information & Broadcasting	28	106	135	133
1.8 Non-Plan Capital expenditure	107	723	650	527
1.9 Non-Plan Loans and Grants to States	132	569	161	99
1.10 Others	545	913	2564	921
2. Total Revenue Receipts	11,177	27,919	33,853	36,688

Source: Budget Memorandum

It also showed the low increase in tax revenues and the poor (well below the target) revenues from the public sector enterprises. This was a useful and welcome innovation which could have been more informative if a forecast of the revised budget items for the previous year 1986-87, had been included, which could have made the discussion and the forecast of the following year's figures more meaningful. But what was really surprising was that the government which must have had the real budget deficit figure for 1986-87 at that time presented in its preview the unrealistic budget estimate figures (-Rs.3703 crores) which was not even half of the revised deficit for that year (-Rs.8288 crores).

On the 1987-88 budget, there are positive elements in its encouragement of savings, increase in the outlay on anti poverty programmes, while its negative features included increased defence spending, its reliance on increased market borrowing which relieves it of increasing taxes or cutting its consumption expenditure, while at the same time not reducing its borrowing from the RBI, which stood at Rs.7442 crores on March 31, 1986. Further, as pointed out earlier, this is borrowing from the rich to maintain the consumption of the rich. Even the tax proposals lean in that direction; the 45 items given excise or customs relief in the budget are all items of rich or middle classes consumption: the corporate tax provisions for liberalised blocks of assets will result in a sizeable reduction in the tax liability of expanding companies and even the attenuated tax on book projects will simply lead to further tax evasion. The capital receipts in the budget, except for inflows of foreign savings and recovery of states loans, crowd out the private sector by drawing Rs.14000 crores from the market as the following table shows:

TABLE XVIII

(Rs. crores)

	1986-87 (RE)	1987-88 (BE)
1. Overall Deficit	8285	5688
2. Draft on Private Domestic Savings	16775	18472
2.1 Net Market loans	5300	6300
2.2 Small Savings (gross collection)	4900	5400
2.3 Provident Fund	574	635
2.4 Special Deposits of Non government Provident Fund, LIC, GIC etc.	2620	2820
2.5 Recoveries of loans and advances from non-government parties	1354	1447
2.6 Other Receipts (net)	2027	1870
3. External Assistance (net)	2436	3200
4. Total Draft on other Sectors (1 plus 2 plus 3)	27496	27360

Source: same as for table XVII

The contribution of the 1985-86 and 1986-87 budgets to Reserve money creation was Rs.14850 crores. M_1 at the end of March 1986 was Rs.41,045 crores and Reserve money Rs.37,783 crores. The 1986-87 deficit will add another Rs.16,500 crores as 40 per cent in M_1 and 43.5 per cent in reserve money. The defence of the huge deficit financing that a) it is a means of utilising unutilised capacity ignores the fact that there is no real unused capacity,

there is inefficient use of production facilities which cannot be cured by inflation caused by deficit financing; b) it is a means of using surplus labour for capital formation, which the 1986-87 anti poverty programme was and to that extent reduces the budget deficit of Rs.8285 crores, which was inflationary as it was spent on services and financed by RBI credit to government which was 62 per cent of the stock of reserve money in 1979, rising continuously to 78 per cent in 1980, 93 per cent in 1981, 100 per cent in 1982 and 103.2 per cent in 1985. Hence from 1981 till today the volume of M_3 has been determined by the size of fiscal deficit financed by borrowing from RBI. The table below shows that 1) there is no relation between annual deficits and GDP growth, no use of excess capacity or no capital formation, 2) movements in consumer prices are related to M_3 and GDP growth rates and 3) larger monetary increases lead to excessive inflation. All this means that the annual rate of inflation is explained by annual deficits of which 1986-87 was a good example and set forth in the table below:

TABLE XIX

Year	Deficit (-) of government of India	Overall Deficit (-) Union plus states plus Union Territories	Money Supply increases M_1	Money Supply increases M_3	Whole price index (1970-71 = 100)
1980-81	(-) 2577	(-) 3451	+3164	+78557	170.7
1981-82	(-) 1392	(-) 2519	+1612	+ 7068	277.1
1982-83	(-) 1655	(-) 2349	+3806	+10422	295.3
1983-84	(-) 1417	(-) 2135	+4513	+13031	321.7
1984-85	(-) 3745	(-) 5105	+6583	+16058	346.3
1985-86	(-) 4937	(-) n.a.	+3902	+16153	359.3
1986-87	(-) 8285	n.a.	+5697	+19501	379.3
1987-88	(-) 5688	n.a.	--	--	--

Year	Cost of living consumer Price Index Industrial Workers (1970-71 = 100)	GDP growth 1970-71 prices
1980-81	420	7.7
1981-82	457	4.6
1982-83	502	1.1
1983-84	558	7.6
1984-85	586	3.5
1985-86	638	5.1
1986-87	688	4.5
1987-88		

Source: RBI and Economic Surveys.

The other fiscal development this period may be noted.

The Fourth Pay Commission recommendations that are being put into effect as of 1 January 1986 concerning reduction in the number of pay scales from 153 of 36, rationalisation and simplification of the compensation against price rises and the modest reduction of the gap between the lowest and highest pay scales from Rs.8804 to Rs.8250 will involve an annual budget increase of Rs.1607 crores, while continuing the problems faced by the low paid employees.

In 1987-88 the government announced the establishment of the Ninth Finance Commission as required by the constitution. The terms of reference have some innovative features such as the inclusion of the Union's finance as well as those of the normative approach to be used in examining Union and states claims, the emphasis on financial discipline and the possibility of looking at all resources, plan and non plan, in an integrated manner. The problems raised in the setting up of the commission include non consultation with the states in its establishment, membership and terms of reference, the manner in which the commission will interpret its mandate as to whether or not the revenue and non plan expenditures of the Union and the states are taken as given, whether it can devise a means for both parties to maximise their tax revenues and not their expenditure estimates, whether it can establish an appropriate distribution of responsibilities between the Union and the states and on that basis allocate the funds and whether its functions overlap with that of the Planning commission. There is one further serious problem faced by the states to which this Ninth Commission should give attention. The states are currently carrying a debt of Rs.80,000 crores to the Union and its banks, which means that most states are

transferring to the Union more resources as interest and principal repayment than the amount of transfers from the Union in plan grants, plan assistance, loans etc. Unless this is examined and resolved, developments in some of the states can come to halt.

Debt

The Union governments' internal and external debt over the period 1970-1987 is set forth in the table below:

TABLE XX

(Rs. crores)

Year	Total	Internal	% of total	External	% of total
1970	17,707	11,554	65.3	6,153	34.7
1980	50,215	40,251	80.2	9,964	19.8
1984	95,261	80,141	84.1	15,120	15.9
1985	113,441	96,805	85.3	16,361	14.7
1986	138,281	119,939	86.7	18,342	13.3
1987	162,761	141,811	87.1	20,950	12.9

Source: Explanatory Memoranda of Budgets & Economic Survey

The table shows a continuous decline in the percentage of external debt, but for the balance of the Seventh Plan and a part from the Eighth Plan, the repayment of the Extended Financial Facility loan from IMF and the repayment of the commercial loans will increase the percentage of external debts in the total debt, as well as the 52 per cent of the annual foreign 'aid' received which is used to for foreign debt principal and interest payments and the debt servicing which stands at 15 per cent of export earnings in 1986-87.

The table below shows the servicing of the external debt both governmental and non governmental.

TABLE XXI

(Rs. crores)

Year	Amortisation	Interest payments	Total debt servicing	Debt servicing %
1980-81	517.8	286.1	803.9	9.7
1981-82	538.0	311.1	849.1	1.0
1982-83	587.1	360.4	947.1	11
1983-84	615.6	416.9	1032.5	15
1984-85	647.4	528.8	1176.2	16
1985-86	775.8	590.8	1366.6	17
1986-87	968.7	631.7	1600.4	19

Source: Economic Survey

The really worrisome aspect of the debt situation is both the large quantum of the total debt at above Rs.1,60,000 crores which is over half of the National Income. In the 70s the total indebtedness grew at an annual 11 per cent, internal debt at 13.3 per cent and external debt at 4.9 per cent. For 1986-87 these percentages are raised to 19.8, 21 and 12.2 respectively. There is need to study the consequences of these rates of increase covering, inter alia, the extent to which the servicing of this large debt is forcing the government to divert resources from development to debt servicing, as well as the trend of the expenditures in revenue account exceeding total tax income, resulting in a growing revenue deficit which has to be met by borrowing. The revenue deficit was Rs.1720 crores in 1980-81 and shot up to Rs.7240 crores in 1986-87, showing a certain degree of inelasticity in both revenue and expenditure. This also means that interest

payments rise faster than revenue receipts Revenue receipts in the period 1980-81 to 1986-87 rose from Rs.12,833 crores to Rs.36,000 crores, which is a compound rate of 16.2 per cent per annum, interest payments in this period rose from Rs.2600 crores to Rs.10,650 crores which was 21.9 per cent per annum. It also represents 29 per cent of total revenue receipts and by the end of the Seventh Plan will exceed a third of such receipts. The effect of the revised interest rate policy following the recommendations of the Sukhumoy Chakravarty report adds to this interest rates problem. Old debts at low interest rates are being replaced by new loans at higher interest. In 1980 old debts formed 59.9 per cent of all loans which declined to 51.3 per cent in 1985. There is need, as earlier pointed out, to check the spiralling revenue expenditures, and to raise tax rates at the same rate at which expenditure is growing, instead of lowering them. Infact there is a case for slowing the rate of growth of the national debt so that it corresponds to the secular rate of growth of the national income, which is contrary to current trends. The ratio of national debt to national income in 1979-80 was 24 per cent and in 1985-86 32 per cent.

Stock Exchange

The behaviour of the Stock Exchange in 1986-87 and during the first quarter of 1987-88 has not been helpful to the economy. This of course is a long term continuing problem, as against the primary function of stock exchange of improving the efficiency of resource allocation of the economy and so increasing its growth rate, in India the financial mechanism represented by stock exchanges is undeveloped which may in part explain the high savings rate and the low growth performance to be discussed later. The undeveloped stock market results in some part of savings being blocked and held in cash instead of being invested, and in unduly large liquidity requirements.

The Indian money market in its turn is dichotomised with a) RBI, the government and financial intermediaries at the centre, and b) money lenders, indigenous bankers, chit funds, nidhis, and joint stock companies on the outer periphery. The central part is composed of a) the call money market, where banks lend funds to one another, b) the undeveloped treasury bills market, with the returns pegged at a low of 4.6 per cent over the past decade and half, as noted earlier, and c) a not very active commercial bill market, inactive because discounted bills are not traded but held till maturity.

These elements are seen in the country's 14 stock exchanges which list 4344 companies, with a paid up capital of Rs.6074 crores, of which 90 per cent are non government public limited companies, with the Bombay Stock Exchange accounting for 70 per cent of the capital referred to above. Its total annual volume of transactions is Rs.12000 crores, of which Rs.11,000 crores are speculative transactions and only 3.8 per cent genuine deliveries. There are 22,000 stock brokers, of whom 1400 are active and 100 engaged in real business transactions. As Bombay is typical of the 14 stock exchanges, it can be seen that stock exchanges in India are speculations and not investment oriented, they have been able to attract as investment in the cooperative and corporate shares and debentures a mere 5.7 per cent of net domestic savings, 2.8 per cent of the financial assets held by the household sector, that is 1 per cent of National Income by 1987-88.[22] In an overwhelming majority of shares quoted in the Stock Exchanges, there is no liquidity or marketability. As the President of the Delhi Stock Exchange states, with regard to new issues, 90 per cent of new issues which came in 1985-86 were unsaleable.[23] This is serious for by

1999-2000 the private sector will have to raise Rs.60,000 crores from the capital market, averaging Rs.4300 crores per annum - Rs.36,000 through debentures or debt related instruments, Rs.24,000 through equities. The Stock Exchanges are geographically limited. 65 per cent of existing share holders are from 80 large companies located in the 5 metropolitan cities - Bombay, Delhi, Calcutta, Ahmedabad and Madras.

There were two important studies in 1986-87 which aimed at correcting this state of affairs. The first was by the Stock Exchanges[24] which set up the Patel Committee. Its recommendations for reforming the functioning of the exchanges covered: i) small houses merging with each other to form viable units and the curbing of excessive speculative activities: ii) stock brokers being prevented from concluding business with clients in their offices, indicating clearly the prices at which securities are bought and sold, and being subject to surprise audit by the Exchanges to ensure their compliance with the rules: iii) banning kerb and inside trading and imposing severe penalties including suspension for not effecting timely delivery: iv) banks to provide loans against non convertible debentures from stock brokers and reserving 20-40 per cent of public issue of convertible and non convertible shares and equities for investors in semi urban and rural areas: v) establishing stock exchanges in a phased manner in all non metropolitan centres with 5 lakh or more of population: vi) setting up an Investors Protection Fund to compensate investors facing default by stock brokers: vii) in place of a Securities and Exchange Commission, a Council for Securities Industry should be set up as the apex body: and viii) empowering government to ensure that Stock Exchanges have uniform structures, vesting their governing bodies with authority

to take criminal proceedings where necessary. These reform proposals are well designed, and are being acted upon, as will be presently noted.

The other related report during the year was the report of the (Vaghul) working group of RBI which starts off well indefining the 3 functions of a money market, namely i) to act as a mechanism for evening out short term surpluses and deficits, ii) to provide a focal point for RBI action on liquidity, and iii) to meet the need for short term funds at realistic prices, which its report is to address, which it either does not or does in a questionable manner. Perhaps this was because the working group's final terms of reference which were not in conformity with the Sukhumoy Chakravarty recommendations on it[25] were narrow covering instruments and rates rather than the money market. Its recommendations deal with new instruments and new internal rates, with dual interest rates in the call market, with conversion of the call market into the inter bank market, which included the reinstatement of brokers in the call market, and the use of moral persuasion by RBI to ensure that call money operations are not disruptive of the banking system, and with removal of the 1973 interest ceiling. These are useful instrumentalities but what the group should have been concerned with are more fundamental issues such as: i) the geographical widening of the market, and not simply increasing its membership, ii) the covering of the several financial and deficit centres with surplus and deficit funds which should have been linked and made part of the money market, iii) a study of the interactions between the money market, the short term funds market, and the foreign exchange market which are related through interest rates, iv) the strengthening of the relation between the money

market and capital market, v) and above all the coverage of the working of the informal money market, particularly the Indian bankers, which the Sukhumoy Chakravarty report had left to it, and which has been completely ignored. Its major recommendations are: i) the removal of the ceiling on interest rates, which is questionable because with the consequent rise in call rates, the provision of "short term funds at realistic prices" will not be attained and the opportunity to retain the ceiling, and making the money market a part of the banking system has been lost and with it one of the effective means of RBI regulating the liquidity in the economy; ii) the development of a bill market and replacing of cash credit by bill finance which is sound; and iii) the setting up of a finance house which has a wider role than a discount house is also sound. Now these important recommendations (except in regard to lifting the interest rate ceiling) should be acted upon.

The stock market in 1986-87 and the first part of 1987-88 was depressed, with the index moving as usual up and down at a low level. In a sense, the year was a year of correction of the dizzy heights reached in 1985-86 which was due to the market reactions to expectations from the government's fiscal and industrial policy, alongside of uncontrolled speculation,[26] and not because of the performance of the corporate sector. There was intervention by UTI, LIC and GIC to the extent of Rs.350 crores which did not help revive the market, which led the government to get the Banks through RBI (the Rangarajan, the Abid Hussain) Committees, to intervene. There has been a continuing dialogue between the Stock Exchange authorities and Union Finance Minister to strengthen and smoothen the market's functioning. The overall behaviour of equity prices

reflected the performance of the corporate sector, where not many companies were doing well, with quite a number facing pressures on their profit margins due to cost escalation and demand recession. These need to be dealt with to ensure a healthy stock and capital market. While the capital market is not too closely linked to the stock market, the performance of the corporate sector has led to reduced subscriptions to new shares. In the capital market, the corporate sector hoped to raise Rs.5000 crores in 1986-87, but its subscriptions have not been buoyant. For 1987-88 it is hoped that the government decisions to reduce the gap between two debenture issues, the support to shares of companies with a good track record, the proposals for the Securities Exchange Commission and the setting up of the Council for Securities Industry might turn the market around.

Prices

In Part I, the Mid Term Assessment of the Plan, the behaviour of prices in the first 2 years of the Plan was outlined. At this mid year point, the price forecast for 1987-88 faces many uncertainties caused by the drought, but the information available upto the end of July - third week of August affords a pointer of things to come.

The following table sets forth the price situation for 1986-87 and for the first five months of 1987-88.

TABLE XXII

(Percentage)

Wholesale Price Index Rise	1986-87	1987-88 (upto July)	Upto August
Point to point	5.3	5.1	7.5
Average	5.4	5.2	7.8
Consumer Price Index Rise			
Point to point	7.5	5.5	
Average	8.8	5.6	

Source: Economic Advisor's Monthly Report & CSO

In the above table, what is not reflected in the around 5 per cent whole sale price rise in 1986-87 is the higher increase in the prices of wage goods such as food articles including rice +6.7, fruits and vegetables +12.2, other food articles +14.1, edible oils, +36.4 and textiles +8.3. In the first quarter of 1987-88, the rise in the prices of essential goods was even higher with primary articles +6.7, pulses +7.7, fruits and vegetables +8.8, non-food articles +13.4, with edible oils and clothing showing a lower rise at +17.2, +1.1 respectively.[27] The latest information, which for the whole sale price index covers August, is that the rate of inflation has by August 31 risen to 7.5 per cent (on a point to point basis) caused by the supply factor on which speculative forces are at work, so that despite releases of foodgrains through PDS, their prices have risen by 13.9 per cent, between April and August, that of pulses by 26.6 per cent, and that of manufactured food articles by 32.5 per cent.

This trend for the prices of essential goods rising faster (in some case twice as fast) as the general price index is a long term phenomenon, recorded also in 1985-86 and is due to structural causes. It accounts for the fact that price inflation increases real inequality in our society - real inequality being defined as inequality expressed in size class expenditures in current prices after deflation by the price index. In addition it should be noted that the hikes in administered prices have been in commodities which are either wage goods or more generally contribuents to it and has fuelled inflation.[28] An analysis of the NSS data, particularly the 24th, 25th and 28th rounds, show that real inequality declines at a much lower rate than inequality expressed as expenditures in current prices, the moral being that inflation of the

kind we are currently and will be witnessing is essentially inegalitarian.

There is a further contradiction to be explained. During 1986-87 the wholesale price index as noted earlier, hovered around 5 per cent, despite monetary expansion in terms of broad money, M_3, increasing at 18.5 per cent and in terms of money supply with the public increasing at 17 per cent. The reason for this expansion of money supply not being reflected in the rate of inflation is the same as that set forth in the previous paragraph, namely - skewed income distribution. This skewed distribution is seen in the large numbers (about 300 million) living in poverty and not being able to purchase the necessities that they and their families need; in the growing role of black money which is nearing 45 per cent of the National Income, and which has little impact on prices as it operates outside the regular market; in the flight of capital to foreign tax free shelters as documented in part in the IMF staff study referred to earlier, which absorbs a part of the increased M_3 and leads to relative stagnation of savings; and in the increased consumerism of the top and upper middle classes.

In 1986-87 towards the end of the year, effective February 28, 1987, the Reserve Bank raised the Cash Reserve Ratio (CRR) from 9 per cent to 9.5 per cent with a view to curbing monetary growth as measured by M_3 (which increased from Rs.16381 crores in 1985-86 to Rs.21,918 crores in 1986-87 and the liquidity of the economy as seen in the 19.9 per cent growth of deposits (of which demand deposits rose faster at 21.6 per cent) and the 35.2 per cent credit increase. The liquidity's main cause, as admitted by the RBI in its Annual Draft[29], was however, government's borrowing from RBI and other banks which increased by 21.9 per cent standing at Rs.12,825 crores in 1986-87 and

continuing by a further 8.6 per cent in the first quarter of 1987-88, seen in the high levels of deficit financing for 1986-87 and 1987-88, referred to earlier. In this situation, the policy instrument to curb the economy's liquidity should have been an increase in the Statutory Liquidity Ratio (SLR), which has to be invested in government securities and through which a part of domestic savings could be mobilised for investment by government. The government raised SLR from 37 to 37.5 per cent rather belatedly in the following year on April 25, 1987.

At the rate at which the wholesale and consumer prices indices are moving in the first six months, the 1987-88 rate of inflation will be around 10-11 per cent in accordance with the index of whole sale prices, and 11-12 per cent in the index of consumer prices.

Agriculture

Agriculture presents certain long term and short run features, which are not always in harmony and lead to changes in long terms trends.

The major long term feature is the declining share of the value added in agriculture to the national income, on which the Technical Note on the Seventh Plan grows euphoric, as reflecting "the interdependence and round aboutness of the production system and a modernisation when more and more fertiliser and irrigation inputs are used".[30] This approach ignores the fact that the falling sectoral share does not accrue to the secondary sector, or even equally with it, but almost wholly to the tertiary sector, which for the backward Indian economy is not a contributor to development, as noted earlier. Nor is attention given to the factor that along

with the modernising process, the input-output relations are worsening, with inputs increasing annually by 5 to 6 per cent, while the output increase was only 2.3 per cent over the period 1970-71 to 1986-87 [31], giving a productivity index of 56.8 per cent for 1986-87.

Another long term issue is the effect of weather on agriculture. Here the Economic Survey shows a certain degree of premature optimism in stating that "in spite of markedly adverse weather conditions, agricultural production in the 80s maintained a steady growth path - (which) is an encouraging indicator of the substantial degree of resilience which has been attained in the agricultural sector". Before examining the sector's "resilience", the facts about the weather in 1986-87 and so far in the 1987-88 need to be noted.

Taking the year 1986-87, the Economic Survey describes the rainfall during the year as below normal for the third consecutive year. 21 meteorological subdivisions received normal or excess rainfall, while 14 had deficient scanty rains, the deficient subdivisions covered Gujarat, West Rajasthan, Marathwada, Haryana, West UP, Bihar, Kerala and North Eastern states. In terms of districts 273 out of 406 received scanty or deficient rains. In 1987-88, for the 4th consecutive year, but more disastrously this time, the rainfall had failed in large parts of the country. In 1987-88 150 out of 406 districts had excess or normal rainfall which means that all states except West Bengal, Bihar and Arunachal Pradesh had deficient rains, the most serious shortfall being parts of Maharashtra and of Karnataka, Tamil Nadu, Gujarat, Kerala (70-80 per cent), Haryana (62 per cent), Punjab and West UP (53 per cent). It will be seen that the drought in both years affects the khariff crop. In 1986-87 3.5 million hectares of cropped area,

being 2 per cent of the total gross cropped area of 173 million hectares and 16.4 million people, which is 21 per cent of the population of 776 millions, were affected. The result was that kharif foodgrains production was 85 million tonnes against the target of 89 million tonnes. While oil seeds and sugarcane were unaffected, there was a fall in production of cotton and jute. The rabi output was 66 million tonnes, totalling 151 million tonnes for 1986-87. The 1987-88 drought will affect kharif much more seriously, and this is a matter of concern as kharif produces 60 per cent of the country's foodgrains. Estimates of the kharif output vary between 65 million to 70 million tonnes against the target of 90 million tonnes. Because of the rains at the end of August and part of September in the drought affected North Punjab, Haryana, West UP as well as in parts of Gujarat, MP & Karnataka, while the kharif loss will not be made good, the moisture in the sub soil should help the rabi crop to reach atleast the 1986-87 level of 66 million tonnes and could be increased to 70 million tonnes. For 1987-88 therefore foodgrains output is estimated at 131 million tonnes to 140 million tonnes, which is a short fall of 11-20 million tonnes from the previous year's production and a short fall of 20-29 million tonnes from the target of 160 million tonnes. Commercial crops have also suffered, particularly oilseeds (groundnuts in Saurashtra) and cotton. All in all in 1987-88 foodgrains production may fall to -8 to -9 per cent, agricultural production may fall to -3 to -4 per cent. There is no indication of resilience in all this.

In this connection, it should be noted that 15 per cent of the country's area under foodgrain production - namely Punjab, Haryana and UP - produce over one third of the annual foodgrain output of 150 million tonnes and contribute

around 60 per cent of the increase in the output. Again of the average annual 8 million tonnes of foodgrains procurement, the above 3 states contribute 80 per cent of the total. This is one small pointer to interstate and regional imbalances in agricultural production, as the production and procurement of non food crops - groundnut, cotton, sugarcane, potatoes, chillies etc show similar interstate variations.

Foodstocks as at June 30, 1987 stood at 23.5 million tonnes which is a per capita availability of 485 grams a day. The shortfall in foodgrains production in 1987-88 will make for a call of some 8-9 million tonnes on the buffer stock for distribution through PDS. In this connection, NCAER in a study [32] which constructs a time series table showing per capita production and availability of foodgrain in the major states for 3 years, 1975-76 when the coefficient of variation (cv) was 56.22 per cent in production and 33.05 per cent in availability, 1982-83 when the CV was 87.65 and 41.98 per cent, and 1983-84 when it was 77.75 per cent and 35.91 per cent respectively, and on that basis concludes that i) the coefficient of variation (CV) in availability is much less than that in production, ii) the CV in production has increased over time, while that in availability has been at a low level, iii) the contribution of public agencies in bringing about spatial stability in foodgrain availability has been significant, iv) inter state transfers have grown in quantum, and v) the impact of these transfers has not moved inter state prices of wheat and rice towards any kind of equality. It is therefore recommended that to bring about inter state prices and consumption stabilisation, the coverage of the public distribution system be extended, particularly in states where the volume of distribution is low, so that it can reach the poor in these states.

In 1986-87 and in some case in 1985-86 two special programmes which have been launched need special mention. One is the special Rice Production Programme to increase production and productivity of rice in 6 eastern states, of Assam, Bihar, MP, Orissa, UP and West Bengal launched in 1985-86. Its first results were good. Out of a total 5.8 million tonnes of additional rice production during the year, 4.5 million tonnes came from these 6 states. In 1986-87 the results have not been so striking, as the overall rice yield for the year has declined by nearly 2 million tonnes. A second much needed and much delayed programme is that addressed to dry land farming which covers 70 per cent of all farm lands. The National Programme of Rainfed Agriculture was launched in 1986-87 through water shed development in 16 major dry land farming states. The programme was just started but the subsequent year's drought which covers these states means that there is no water even for the water sheds. The other important programmes which have been launched in 1986-87 are the National Oilseeds Development Programme helped by the 1986 Oil Seeds Technology mission aiming to increase oil seeds to 18 million tonnes by 1989-90 from the present 13.50 million tonnes, the National Pulses Programme aiming at the production of 15 million tonnes by the Plan end, and a programme to help small marginal farmers. All these 3 priority programmes have come up against the drought constraint this year. The main items of agricultural production may now be reviewed.

Wheat

Wheat production has been on the increase during the Seventh Plan at 46.85 million tonnes in 1985-86, 48.49 million tonnes in 1986-87 and a possible 48.50 million tonnes in 1987-88, if there are winter rains. At this rate the Seventh Plan target of 56-57 million tonnes can be very nearly reached.

There are certain features of this wheat production scene which need attention. First during all the 3 years, the major wheat production of the country emanates from Punjab, Haryana and West UP because of homogenous soil conditions and climate, well irrigated agriculture, consolidation of land, owner cultivation and the strong human resources involvement. The High Yielding Variety seeds used in these 3 states has increased the area under such cultivation from 30 per cent in 1968-69 to 85 per cent in 1985-86.

A second issue relates to the cropping pattern followed in this area and the need for its possible change. As the Economic Survey points out between 1967-68 to 1983-89 the area under wheat increased by 2.67 per cent per annum compared to the annual growth rate of 0.60 per cent of the total cropped area, of 0.64 per cent for land under rice which was about the same as the growth rate of the total cropped area, and a negative growth for land under coarse cereals. Given the bulging (somewhat wasteful and wasting) stocks of wheat, and the fact that coarse cereals are the poor man's food, and the need to increase the protein intake of the poor through increased availability of pulses, as well as the need to save on scarce foreign exchange by reducing and ultimately eliminating the import of edible oils, there is need to change the cropping pattern to shift some of the lands growing wheat to coarse cereals, pulses and oilseeds. As the cropping pattern reflects the profit expectation of the cultivator who may not always be receptive to what society needs, there is need to change the relative prices of these crops, and back it up with a strong R & D programme, and one of input supplies, management and marketing. A third related issue concerns prices

and procurement. On prices, wheat procurement prices have been rising at an annual average of 5.1 per cent in the 80s and is currently fixed at Rs.166 per quintal. The official document on agricultural prices pledged the announcement of support prices before the sowing season and the promise has been kept for rabi wheat production and procurement. With regard to procurement of wheat, on the basis of procurement data, the Chawla sub group has revised the norms of marketable surplus for wheat from 37.80 per cent to 52.44 per cent as from the eighties. For Punjab, Haryana and UP, this may still be an underestimate.

Rice

Kharif paddy production in 1986 was 55 million tonnes against the target of 60 million tonnes, and actual production of 59.8 million tonnes in 1985. The 1986 shortfall was due to the delay in the onset of the monsoon, which delayed kharif transplantation in Bihar, Assam, West Bengal and because of the inadequate flows from Cauvery in Tamil Nadu. On top, there were floods in AP, Bihar and Kerala, which washed away a considerable part of the paddy crop. In 1987, the absence of rains in rice growing areas is serious. Out of 37.8 million hectares on which rice is grown, less than 43 per cent (16.1 million hectares) are irrigated, so that nearly 60 per cent of the rice crop is dependent on a normal monsoon. Given the fact that in the 1987 Kharif season there have been failure of the monsoon in Tamil Nadu, Karnataka, parts of Andhra Pradesh, MP, Punjab, Haryana and Western UP, rice production during the summer and kharif season, 1987 is likely to decline by 15 million to 20 million tonnes in comparison with the 1986 kharif target.

The gravity of this shortfall is seen in the fact that rice constitutes 42 per cent of the country's total foodgrain production. Further rice is grown in widely varying soils and climatic conditions so that the HYV rice coverage of 58 per cent (which is about 40 per cent less than that of wheat) needs to respond to these many differences.

There is a long term problem that the country faces in this area of rice production. The secular trend of the rate of increase of rice production over the past two decades ending 1986-87 has been 1.6 per cent, while during this period the population growth rate has been 2.2 per cent. To close this somewhat alarming gap is one further justification for the Special Rice Production programme launched in 1985-86 in 6 states. Its impact will also need to extend to the states in the South and Maharashtra and to that extent its HYV targets of 23.8 million hectares in 1985-86, 25.80 million hectares in 1986-87, and 29 million hectares in 1987-88 (which may have to be extended by a year to compensate the drought effect) will need to be increased by 15-20 per cent, concentrating the training cultivators on optimal use of irrigation, drainage and land development, promoting inputs sales centres and godowns and providing the needed quality seeds, fertilisers, pesticides and improved farm implements.

Coarse cereals

Coarse cereals so called, comprise 6 groups - jowar, bajra, maize, ragi, barley and small millets. They are grown over 32 per cent of the total cultivated area and (as an annual average ending 1986-87) produce 21 per cent of the country's total foodgrains. The table below presents the area under each crop, the area under HYV and the products.

TABLE XXIII

Crop	Area	Area under HYV	Product (million tonnes)	Area	Area under HYV	Product (million tonnes)	Area	Area under HYV	Product (million tonnes)
	(million hectares)			(million hectares)			(million hectares)		
1. Jowar	16.4	6.08	11.0	16	4.94	10.9	15.8	6.46	10.12
2. Bajra	11.0	4.99	3.6	10.9	4.68	3.82	11.1	5.90	5.68
3. Maize	6.1	1.80	6.2	5.9	1.92	6.75	5.79	2.40	7.34
4. Ragi	2.8		3.0	2.6		2.8	2.4		2.6
5. Barley	2.9		3.1	2.6		2.0	1.4		2.52
6. Small millets	2.2		1.30	2.1		1.41	2.0		1.2

Source: Agricultural Situation & Annual Reports of Department

The table shows a varying rate of increase of coarse cereals production at 26.47 million tonnes in 1985-86 and 30 million tonnes in 1986-87. In 1987-88, the drought may force the diversion of some crop lands to coarse cereals, increasing its production by 2 to 3 million tonnes, particularly of jowar, and maize over that of 1986-87.

The table also shows that the area under coarse cereals is declining over the years except in the case of bajra. The reason for this is the farmer's preference for the higher profit yielding crop like wheat, rice and sugar cane. This declining area of this vital crop - vital for the mass of the poor of the country - seems inevitable and can only be countered by increase in the productivity of the reduced hectares of land. Here the HYV programme becomes decisive, because studies [33] show that though losing in area to rice and wheat, their growth rate is similar to that of rice and wheat, and that the stagnant yield is not due to any permanent constraints like unstable yield rates, low demand or falling price, but mainly to technological factors. For 1987-88, the HYV programme as set out by the table should be complemented by increased irrigation and more fertiliser application.

It is to be hoped that the National Programme of Rainfed Agriculture is extended to this group of crops, taking advantage of the mini kit demonstration programme for the popularisation of newly released varieties of jowar, bajra, maize and barley, and that they take into account the agro climatic condition of the 6 or 7 different states in which they are mainly grown. Under these condition, the Seventh Plan modest target of 34-35 million tonnes of coarse grains can and must be attained.

Pulses

Pulses production in 1986-87 saw a rather unusual diversion of cultivated area from cotton to pulses (in response to rains and the cotton glut in 1985-86), resulting in kharif production of 5.5 million tonnes. This gain was nullified by the loss in rabi due to inadequate moisture and rains in 3 major producing states - UP, MP & Rajasthan which lowered rabi pulses production to 7.5 million tonnes, giving for the year of a total of 13.2 million tonnes against the target of 14 million tonnes. For 1987-88 there will be a serious fall in kharif pulses, but with the present moisture and possible winter rains, rabi production should more than make up the shortfall to reach last years output.

There are serious long term problems that the country faces in the area of pulses. Since the First Plan, the area under pulses is stagnant with a nil or very low growth rate of 0.3 per cent per annum (which is a third of that of cereals), the yield rate has been again one third of cereals at an annual 0.8 per cent, and its production growth rate 1.1 per cent per annum. As this is well below the population growth, the per capita availability of pulses has declined over the period, from 61 grammes per day during the First Plan to 41 grammes during the second year of the Seventh Plan, 1986-87. All these are reflected in only 18 per cent of the total area under foodgrains (22 to 23 million hectares) being used for pulses, with production stagnant at 12 to 13 million tonnes, and, infact, recording a declining role from 16.5 per cent of total foodgrains production in the First Plan to 8.3 per cent today. Can this trend be reversed, as it should, because of the nutritional stakes involved?

To answer that question, the main reason for declining and stagnant pulses production should be identified. These include a) the crop being grown on marginal lands and heavily reliant on dry land farming; b) the use of little or no modern inputs such as quality seeds or fertiliser; c) the yield is subject to high price fluctuations making pulses production a high risk crop. As pulses prices increased 153 per cent in the past 3 years, the demand for it declined, leading to decline in production, in a kind of chicken and egg relation. This is one case when higher support prices do not lead to increased production. Gram prices increased on the average by 9.2 per cent per annum during the Sixth Plan and the first two years of the Seventh Plan (compared to the annual 5 per cent increase in wheat prices and 7.6 per cent increase in rice prices) but production during the period has been stagnant or increasing at a low rate.

The means of increasing pulses availability is not through import of pulses as was tried in 1982. India is the world's largest producer of pulses at 27 per cent, followed by the Soviet Union (16 per cent) and China (13 per cent). In yield per hectare, however, India is a low 8th, with France being in the first place. Here the National Pulses Development Programme launched in 1986-87, referred to earlier, is the solution, if that programme is supported by the states developing minor irrigation facilities for the lands growing pulses, to support the location specific technology which is district oriented, using the mini kit which has been packaged and then and only then taking advantage of the better prices. Here again the modest Seventh Plan target of 15.5 million tonnes, modest in relation to the population of over 800 million by then, must be attained and can be, if the above measures are adopted and optimally used.

Oil Seeds

Oil seeds are another problem area. India's main edible oil seeds are groundnut, sesamum, rape seed, mustard seed, safflower seed, niger seed, and soya bean. In addition there are a number of rich oil bearing forest trees like sal, matina, neem etc. But there are several problems faced in this area.

The most serious one is that oil seeds are grown on rainfed marginal and sub marginal lands, which cannot use modern inputs and which is the major obstacle that the National Oilseeds Programme and the Oilseeds Technology Mission will face. Only a fraction of the land used for cultivating oilseeds - less than 14 per cent is covered by irrigation, and accounts for oilseeds production fluctuating with the monsoon.

The long term problem is that while oil seeds production has recorded a growth rate of 1.9 per cent per annum over the past 3 plan period, demand has increased by 4 per cent per annum. The Planning Commission sub group on edible oils estimates the demand at 53.29 lakh litres in 1986-87 and domestic production at 36 lakh litres. The government has tried to fill this gap by importing edible oil, which in its turn raises the question as to why, unlike other importing countries we do not import oil seeds when there is a large unutilised refining capacity in the country, instead of importing oil. There is also the question of its not being made available to the consumer but allocated very largely to the vanaspathi industry, an issue to be discussed later. In 1986-87 the government woke up to this situation and decided to reduce the import of edible oil by 55 per cent in value and 15 per cent in quantity compared to 1985-86

imports, to reduce intra year price fluctuations and raise harvest prices by changing the release of imported edible oils to contra seasonal pattern and to use the fiscal instrument of excise relief for greater use of minor oil seeds. But all this collapsed when there were signs of oil prices rising; the government rushed to restore the previous year's import of edible oils (and its allocation to the vanaspathi industry). In 1987-88 the government has announced even larger imports of edible oil (+18 per cent) to meet what it believes to be falling domestic production.

In 1986-87 the production of 9 major oil seeds amounted to 13.7 million tonnes against the target of 14.8 million tonnes. While kharif oil seeds production was below the target of 7.85 million tonnes at 6.8 million tonnes because of the failure of the monsoon in the main groundnut producing area - Saurashtra, rabi oilseeds production exceeded the target at 6.95 million tonnes, the target being 6.9 million tonnes due to the increased contribution from groundnut and increased productivity of rape seed/mustard seed from 7 quitals to 20 quintals per hectare. For 1987-88 there will be a sharp decline in groundnut production because of the almost total failure of the monsoon in Saurashtra. Under these conditions to ensure a supply of 14.15 million tonnes, the government must encourage and mobilise use of all non conventional oilseeds referred to earlier and import oil seeds to make up the deficiency which may be of the order of 5-6 million tonnes plus a further 5 million tonnes to stop import of edible oil. The National Oilseeds Programme and the Technology Mission can only have long range effect, as they involve inducing the farmer to move to less marginal and more irrigated land. A programme for 1987-88 and 1988-89 is needed.

Cotton

The uncertainty and widely varying estimates of cotton stock and carry over, and cotton production for the year as between government, the Cotton Advisory Board (CAB), the East India Cotton Association (EICA), the Cotton Corporation of India (CCI), the Indian Cotton Mills Federation (ICMF) and the trade continued for the 1984-85, 1985-86 and 1986-87 seasons, making impossible any planning of internal consumption, orderly marketing, and an export policy. The cotton carry over estimates from the 1984-85 season ranged from 36-50 lakh bales. For 1985-86 season, the government's estimate of cotton production was 107 lakh bales while the trade estimates was 115 lakh bales.

For 1986-87 season, the estimates of opening stocks was 50.11 lakh bales by EICA, 45 lakh bales by CCI, 39.5 lakh bales by CAB and 29.30 lakh bales by ICMF, the cotton production for the year was estimated at 102 lakh bales by CAB later reduced to 95 lakh bales, and 108 lakh bales by EICA later reduced to 85-90 lakh bales. Under these chaotic conditions, the decision in March 1987 of the government to set up a committee to make a precise estimate of the annual cotton crop is welcome, as that makes possible export-import and domestic use planning, and will enforce market discipline.

There are problems in estimating the crop. The varietal imbalance with the long and extra long variety forming today 50 per cent of the total output complicates both the estimates and the marketing process. These varieties have increased from 26 per cent of the total output in 1968-69 to 37 per cent in 1981-82 on to 50 per cent today. To help in the marketing of this variety - long and extra long -, the Forward Market Commission has approved reintroduction of hedge trading.

Hedge trading is a form of organised speculation, and it is clear that if such future trading is to be permitted, cotton is fully eligible for it. The problems that will, however, be faced is the lack of infrastructure for hedge trading which was not permitted for 20 years. When EICA develops the infrastructure, the question whether the official marketing agencies, CCI, Maharashtra State Cooperative Marketing Federation, the Gujarat Marketing agency and other state agencies will be allowed to function in such forward trading will have to be faced and settled. They should, as they should play their part in the determination of cotton prices and the forward market.

Cotton prices and cotton purchases of the official agencies also need a brief comment. Cotton prices fluctuated during this 2 year period, ruling very low at Rs.700 - Rs.1400 a candy below official support prices in August 1986, rising in mid October by Rs.150 - Rs.500 a candy and by 45 to 85 per cent in June 1987 compared to the August 1986 low level. These fluctuations had multiple effects on the official purchase agencies and the mills. When prices were low, CCI purchased 15 lakh bales and in November 2 lakh bales from Punjab, Haryana and Rajasthan and the Maharashtra Federation purchased 39 lakh bales, with the result that the CCI lost Rs.50 crores and the Maharashtra Federation Rs.350 crores. Because of CCIs poor infrastructure (inadequate weightment facilities, inadequate inspection to ensure quality, payment by cheque) farmers were forced to sell their cotton at below support prices to traders. Fortunately international cotton prices began rising because of the poor US cotton crop which led to the export of 10 lakh bales in 1985-86. This also meant that CCI sold its stocks which were reduced to 5000 bales and the Maharashtra Federation to 3.4 lakh bales by June 1987.

Two important developments during this period should be noted and welcomed. First a 3 year cotton export policy was finally announced in 1986-87 involving an annual export of a minimum of 6 lakh bales. But in carrying out the policy, the shortfall in cotton estimates for the second year led to a long delay in permitting the balance 3.5 lakh bales to be exported, as of August 1987 some 93,000 bales were still not released for export. This makes India an unreliable exporter, unable to meet its export commitments. One suggestion to meet this lacunae is to set apart some areas which will produce cotton only for export. The second important development was that on March 3, 1987 for the first time cotton support prices, which increased them by Rs.10 per quintal, were announced before start of the sowing season - a long expressed demand - which though lower than market prices, provide a safeguard to the cotton grower.

But there remain a number of problems and ambiguities in the cotton scenario. First the Seventh Plan target of 95 lakh bales has long since been surpassed (in 1984-85 itself) though the government's statistical offices place the 1985-86 production at 86.12 lakh bales and the 1986-87 production at 80.41 lakh bales. This places the government in the ridiculous position of stating in effect that domestic consumption far exceeded the supply availability. Second more seriously the promise of the textile policy to make cloth available to the people "at affordable prices" has not been kept. This is serious because the supply of cotton during this period has been abundant, and except in the last few months cheap; there was no shortage of spinning and weaving capacity and yet the per capita cloth consumption is less than what it was a decade ago. Further the promise in the policy statement that "the present varietal imbalance of cotton shall be corrected" has been ignored, the imbalances

has been allowed to worsen. The Cotton Development Council which could have advised on this, and increased productivity, marketing, exports, and improved fibre quality has not met for 6 years. Finally the policy's promise to help the mill sector has also not been kept, as the industry's margin has been eroded through the steep rise in cotton prices in the last 6 months and through cost escalation generally, which has resulted in sickness in the industry spreading and the closure of 95 mills - which will be later discussed.

Jute and Mesta

Jute is grown over 8.50 lakh hectares and mesta over 3 lakh hectares. The 1986-87 target was 88 lakh bales and the actual production was 75-78 lakh bales, due primarily to reduction in the area under jute. The target for 1987-88 is 90 lakh bales and as West Bengal and Bihar are not affected by the drought (but have faced floods) the actuals should be near the target. In West Bengal, over the past 20 years, jute acreage has increased by 1.4 per cent, yield by 0.8 per cent and production by 2 per cent which did not quite make up the deterioration in all 3 areas in Bihar, Orissa, Assam and UP jute production. There is and has been a jute paddy substitution in acreage and output in response to jute-paddy price ratios and relative profitability. Exports of raw jute fluctuate due to sluggish output and the low quality fibre.

The problem faced by jute grower is that the market is controlled by monopsonic elements. While farmers receive Rs.120 per quintal, the same product sells at Rs.220 in the Calcutta market. On top the market in futures is poor (this is another case which hedge trading is justified provided JCI is involved), and distress sales all too common because of debt bondage.

The main emphasis in 1987-88 should be to increase productivity, improved quality of the fibre and an increase in the farmer's selling power, if need be, by developing a cooperative structure. This could be assisted by the Jute Development Programme which could use the cooperatives to provide block demonstration, minikits, seed drills and soil and antipest sprays.

Sugarcane

The sugarcane scene is an encouraging one. On the one hand there has been a continuing decline in the area under sugarcane from 3.34 million hectares in 1982-83 to 3.1 million hectares in 1983-84, to 2.95 million hectares in 1984-85, 2.86 million hectares in 1985-86 and 2.79 million hectares in 1986-87. On the other hand, there has been an increase in production by 5.8 per cent in 1983-84, 5.9 per cent in 1983-84 and 1.5 per cent in 1986-87. There have been declines of -4.7 per cent in 1982-83 and -4.1 per cent in 1985-86. Those two declines were a warning that though the productivity rate as measured by quintals per hectare was rising, the rate of area declining was even higher, leading to a fall in production.

The rate of increase of sugarcane production was related to the price offered to the cane grower. Here the Union price decided in relation to the price of levy sugar and the state advised prices which vary from state to state and subject state governments to the barganining of both sugar mill owners (who have to pay the price to the cane farmers) and cane farmers, is both a source of confusion and leads to some loss of production.

Sugarcane production was 180 million tonnes in 1986-87 against the target of 172-175 million tonnes. Sugar production with its target of 190 million tonnes for 1987-88 will be affected by the drought - (sugar cane is a water intensive crop). For the attainment of the Seventh Plan target 214 million tonnes, there must be an increase in the area, reversing the quinquennial trend referred to earlier, of the decling area. The Seventh Plan target will require an area of cane production of 3.5 million hectares, which, however, is not a priority in relation to the need for pulses, oilseeds and coarse grains.

Plantation crops

The plantation crops have done well in the last 2 years.

In the case of tea, the production in 1985 was 670 million kg. and exports 220.4 million kg. earning Rs.674.25 crores, and in 1986 they were 637 million kg. 210 million kg. and Rs.716 crores. The 1987 crop will be normal at 650-700 million kg. as the major tea gardens in North East India have not faced the drought conditions and should make up the serious production shortfall in the South. The exports from the South are expected to be less than 50 per cent of its normal at Rs.35-40 crores. The export target for 1977-78 has been fixed at Rs.700 crores

which is attainable. The problems faced by the industry are a) the rapid increase in domestic tea consumption compared to the slow growth of production, b) the small amount of packaged tea exported by India (15,000 - 16,000 tonnes), which is the major export demand, and c) the declining trend in exports due to poor publicity, strong competition from China and Sri Lanka and the loss of confidence of foreign importers because of the changes in the policy and volume of India's exports. All these are remediable, and should be in the coming years. In fact a long term tea policy and export tea policy is needed and the export panel set up by the government in early September should provide the elements for such a policy.

In coffee, the 1986-87 production was a high 180,000 tonnes to which the carry over of 20,000 tonnes from the previous year should be added. Against this total availability, unlike tea, domestic consumption is stagnant at 60,000 tonnes, so that export markets have to be found for 140,000 tonnes, against which a quota of 1.23 per cent (39,500 - 43,000 tonnes) has been allotted by ICO to India. Finding non quota countries who would take 10,000 tonnes is difficult and will involve exporting in some cases at throw away prices. One action needed is for the industry to intensify its publicity to increase domestic consumption, so that it is doubled by 2000, for which the

production target of 2 lakh tonnes has been fixed. This target can be achieved by providing better irrigation facilities to counter droughts, which Karnataka, Tamilnadu and Kerala, which are the main growers are facing this year, expanding the area of cultivation (+ 4400 hectares in the North East) and introducing HYV drought resistant seeds which the coffee Research Institute should develop.

In 1985, production of natural rubber was 1,98,375 tonnes (+ 19 per cent), synthetic rubber 36,553 tonnes (-6 per cent), reclaimed rubber 39,165 tonnes (+ 10.6 per cent). The problem is with natural rubber whose production in 1986-87 was 2.2 lakh tonnes and consumption 2.5 lakh tonnes, which sets the scene for the familiar producers - users tussle. For the present the struggle between them is over the quantum of imports to cover the supply gap which is around 30,000 - 40,000 tonnes. The rubber demand is 52 per cent from auto tyres and tubes, 12 per cent for cycle tyres and tubes, 11 per cent footwear etc. Demand projections for natural rubber are 2.5 lakh tonnes in 1986-87 rising to 5.6 lakh tonnes in 1999-2000. Production projections are growth from 2.2 lakh tonnes to 4.9 lakh tonnes during that period. To close tha gap of 70,000 tonnes, there should be first extension of the area under rubber plantations of 15,000 hectares in the traditional areas, and 30,000 tonnes in

non traditional areas - Andamans, Orissa, Goa and Maharashtra. If this were done, production at the end of the Seventh Plan will be 2.65 lakh tonnes against a demand of 3.15 lakh tonnes. The balance of 50 lakh tonnes should be gradually met by increasing the production of synthetic rubber from 72,000 tonnes to 80,000 tonnes in 1989-90 and to 1.2 lakh tonnes in 1999-2000. The tailing off of imports is not only in the interest of growers but also saves out go of scarce foreign exchange. The Rubber Board's programme of extending rubber production in non traditional areas is sound and should be accelerated. The Board which also has launched a crash programme to increase the productivity of small growers by 150 kg. per hectare which will increase production if not by 37,500 tonnes envisaged, atleast by over half of it, is a sound short term measure.

In cardamom, just when the industry was limping back to normality with an output of 4700 tonnes in 1985-86 and 4500 tonnes in 1986-87 despite a partial drought, the full drought this year will reduce the 1987-88 production to 3000 tonnes. The industry also faces the problem of declining exports due to the competition from Gautemala, and the problem of falling prices since 1984-85, approaching now the level of production costs. The world projection for cardamom is for a production of 14,601 tonnes and a demand of only 9774 tonnes. There is

need for India – the Board and the government – to devise a marketing strategy to meet this imbalance between demand and supply, so that its share of the world market is safe guarded, if not expanded.

Allied Activities

Forestry The main problem faced in forestry is the lack and/or outdatedness of the forest data. The old figure of 23 per cent of the area, that is 75 million hectares, being under forest is derived from not very reliable and certainly not updated states forestry reports. The National Remote Sensing Agency reports a somewhat more reliable and more distressing state of affairs – that forests covered 55 million hectares in 1972–75 and in 1981–82 was reduced to 46 million hectares. This means that 1.5 million hectares of forests are being lost annually, and 1 crore of trees are cut every day.

The reasons for this rapid rate of decline of forest cover are (a) the development schemes, mainly the major irrigation projects which involve destruction of hectares of forest land, (b) industrial demand for wood and forest products, without any provision for their replacement, and (c) the fuelwood demand, on which, for some part, the poor make a living.

There is little or no attempt being made to deal with these basic causes for the loss of forests. The Social Forestry scheme under which in 1987–88 108 crore of saplings are to be planted faces both a high rate of loss of the plants and the limitations of a symbolic effort. The Departments of environment in both Union and state governments should be given fuller powers to act and not be mere post offices. Industry must be required to replant tree for

tree on every part of their use of the forest raw materials. On fuel wood, its replacement by the use of leaves for fuel has not even begun.

Now that Forestry has become a concurrent subject and a national Forest Act has been passed, from this year 1987-88, the Union government should become the national agency to safeguard and extend the forest cover of the country.

Fisheries

In fisheries, against a potential of 4.5 million tonnes, only 1.7 million tonnes were obtained in 1986-87, using 1.54 lakh of non mechanised boats, 20,000 mechanised boats including 128 large deep sea vessel trawlers, though it seems that the Seventh Plan target of 500 such vessels might not be attained by the end of the Plan.

The industry faces several constraints including a high risk factor, large capital need, lack of adequate infrastructure for processing the catch, and lack of trained personnel. There is no long term plan covering both inland fishing and marine fishing.

Under these conditions, given the governments' lack of resources, permission has been given in 1986-87 to large houses under MRTP & FERA to set up joint fishing ventures as one means of exploiting the rich potential of deep sea fishing. The conditions for their operation are that 1) equity participation by Indian and foreign companies should be 60:40, 2) they should be registered in India and non Indian personnel are phased out in five years, 3) the ratio of equity participation to be relaxed for high technology imports involving specialised fishing, 4) the charter or

long term lease of deep sea fishing vessels should be above 20 metres in length. One even more important condition has to be ensured is that this opening to large houses of the Exclusive Economic Zone (EEZ) should not limit the fishing activities of traditional fishermen, which means that the large houses must be excluded from the coastal areas.

The extent to which this policy of opening the EEC to MRTP/FERA companies will increase the 1985-86 catch of 28.76 lakh tonnes and exports of 83,651 tonnes and the 1986-87 record of 30 lakh tonnes and 90,000 tonnes of export is an open question, as the big houses who ventured into the EEC in the 80s did not do well and subsequently withdrew.

The 1987-88 targets are: 31 lakh tonnes of production and 1 lakh tonnes of exports. To attain these targets the seven programmes for the development of fisheries launched in 1986-87 ranging from the provision of soft loans for acquisition of deep sea trawlers, the subsidy for motorisation of traditional craft to the subsidies to FFDAs to develop inland fisheries may be decisive.

Dairy Development

Milk procurement was 65.95 lakh litres per day, rising to 70.5 lakh litres in 1986-87. For 1987-88 the target is 75 lakh litres.

In 1986-87, the joint EEC World Bank missions evaluating the Operation Flood II programme recommended its reduction and eventual termination, as it is hampering transition towards a cooperative structure. Accordingly it recommends that milk powder and butter oil should be provided only when there is a deficit. It is suspicious of the official

data on the growth rate of milk production which it thinks is overestimated, particularly as there are no data collection machinery at project or government level. It calls attention to the fact that the modernised organised sector controls only 11 per cent of the total milk produced, which points to the need for improved organisation of the traditional milk trade, rather than the imposition of the Anand pattern everywhere. It also recommends improving indigenous live stock and buffaloes in place of the programme of cross breeding and that the existing disparities in milk consumption between rural and urban areas should not be increased. This set of recommendations should be placed along side of the results of empirical studies which show that villages with dairy development programmes have higher incomes and more food intake, in deciding on policies.

The latest information on animal husbandry and poultry is the results of 1983-84 census showing the gross value of output from the livestock was Rs.141.2 billion, that broilers were 80 million and the eggs produced 15.9 billion. This is no basis to plan the development of animal husbandry and poultry which should be done at the level of each state.

Irrigation

The irrigation sector presents a massive case of waste of capital resources. The table below provides a summary picture of the various forms of irrigation - the potential created and the utilisation effected over the time between the First and the Seventh Plan:

TABLE XXIV

(million hectares)

Item	Ultimate Potential	1950-51 Potential	Utilisation	1979-80 P	1979-80 U	1984-85 P	1984-85 U
Surface water	73.5	16.1	16.1	34.6	30.6	40.2	34.3
a) Major & medium	58.5	9.7	9.7	26.6	22.6	30.5	25.3
b) Minor	15.0	6.4	6.4	8.0	8.0	9.7	9.0
Ground water	40.0	6.5	6.5	22.0	22.0	27.7	26.0

Source: Seventh Five Year Plan Vol.II

The table shows that out of the 30 million hectares potential created by the major and medium irrigation works, 5.2 million hectares of the Potential is wasted at the start of the Seventh Plan. The cost of creating fresh potential has risen from Rs.2200 per hectare in the First Plan to Rs.27,000 per hectare in the Seventh Plan, and if the cost of Command Area Development for saving good lands from water logging and converting potential created to potential utilised are taken into account, the final cost per hectare is Rs.40000 or Rs.132,800 crores for 33.2 million hectares. This means that while Rs.15,024 crores were invested in major and medium irrigation works between 1951 and 1985 to create a utilised potential of 15.6 million hectares, at an average cost of Rs.16,000 per hectare, ground water development by some 10 million farmers created and utilised potential of 19.6 million hectares without involving the government in any direct expenditure.

Groundwater irrigation is twice as efficient in promoting agricultural productivity as surface water irrigation. The country has 112 million hectares of utilisable ground water, of which only 10 million hectares are being extracted today, which means that ground water can irrigate an additional 110 million hectares. But this calls for attention to optimum replenishment and management of ground water to avoid its over use, which reduces the water table and in some cases involves the intrusion of saline water.

For the Seventh Plan, the 8th Finance Commission has warned that irrigation expenditure will be Rs.2611 crores and income Rs.1112 crores, involving a loss of Rs.1499 crores. To mitigate the losses and avoid their increase in the remaining years of the Seventh Plan: a) no new major irrigation project should be started, b) emphasis should be on completing the 181 projects started in 1970, c) adequate field channels should be constructed and the Waribandi system whereby each farmers gets an amount of water proportionate to his holding at the stipulate time as per a predetermined schedule, which will reduce water wastage should be operated, and d) adhering to the approved cropping pattern and developing a proper draining system to avoid water logging should be ensured. In all this, the Command Area Development Authority should be the coordinating body, to ensure optimum returns from the heavy Rs.16,929 crores that are being invested in the Seventh Plan.

Manufacturing

Manufactures need to be looked at as part of industry which traditionally comprises mining and quarrying, manufacturing and electricity, the first and last being dealt with later under infrastructure. The rate of growth of

industry and its three components for the 6th Plan and for 1986-87 are presented in the table below, using the 1970-71 base as well as the 1980-81 base:

TABLE XXV

	VI Plan (1970-71 base)	1986-87 (1970-71 base)	1986-87 Apr-Oct (1980-81 base)	Apr-Dec (1980-81 base)	Apr-March (1980-81 base)
Industrial growth	5.5	6.3	7.4	6.8	8.9
Mining & quarrying growth	10	9	7.6	7.4	6.2
Manufacturing growth	4.5	5.2	6.8	6.2	9.0
Electricity growth	8.3	9.2	10	10.3	10.3

Source: CSO

The above table setting forth the overall industrial and sectoral growth rates for 1986-87 raises several issues. The first is the jump of the overall industrial growth rate (1980-81 series) from 6.8 per cent in first 9 months of 1986-87 (April-December) having fallen from the 7.4 per cent rate for the first seventh months (April-October), to 8.9 per cent for the year. The manufacturing sector in particular jumped from 6.2 per cent to 9 per cent in this period. This means the industrial performance, particularly that of manufacturing in the last quarter, January-March 1987, must have been of an exceptionally high order. The statistical situation is even more puzzling because CSO in August reported

that in the 11 months April to February 1986-87 the industrial growth was 7.5 per cent. How did it jump in one month to 8.9 per cent. This is puzzling and is an unexplained puzzle. CSO has in releasing these figures, covered itself by stating that a) the 1986-87 annual average is provisional and b) it is based on quick estimates for the months of February and March 1987 which are subject to revision.

A second issue is the transition from the old index with the base of 1970-71 to the new one based on 1980-81. In the process several changes have been introduced in compiling the index. The only point common between the old index and the new one is that the total number of items remains the same at 352 as noted earlier. But some 90 items, which were not reporting on their performance regularly, and which, therefore were repeated at the last reported figure year after year, were dropped. They were replaced by some new items which had become important in the manufacturing sector like electronics, chemicals and chemical productivity. Also 49 items from the small scale sector were included, starting with 18 items for which information was readily available. Further the weights have been changed, with greater weightage being given to mining and quarrying and electricity and a reduction in weightage of manufactures. Apart from the fact that these changes introduce a certain element of discontinuity, (necessitating the calculation for every year of the two indices), it is not clear whether the 8 per cent target of industrial growth for the Seventh Plan based on the 1970-71 series needs to be revised upwards to 10 per cent under the 1980-81 series, as the industrial growth rate under the new series has surpassed the target during the first 2 years of the Plan at 8.7 per cent and 8.9 per cent respectively.

In regard to 1987-88 there are two somewhat contradictory factors to note. The Department reports that the growth rate of infrastructure industries for the first five months, April-August was 9.1 per cent, with electricity (10 per cent), steel (15.3 per cent), petroleum (10.1 per cent) and cement (9.7 per cent) -- all representing a weight of 28.8 per cent. The government also stated in the monsoon session of Parliament that industrial production in July 1987 was 8.1 per cent higher than in July 1986 and that industrial production is not being affected by power shortages due to most large units having **capitive** power plants.[34] (As diesel gets diverted to agricultural pumpsets, this may not last).

On the other hand, there is the effect of the decline in the rate of growth of agriculture in 1987-88, which earlier has been set at -3 to -4 per cent on industrial growth. A statistical analysis of the time series of the rates of agricultural growth and those of industrial growth over a 30 year period (1956-57 to 1983-84) shows that when agricultural production fell by 7 per cent in 1957-58, manufactures declined from 8.6 per cent in 1956 to 2.7 per cent in 1957 and 1.2 per cent in 1958, and when it (agricultural production) recovered by 16 per cent in 1958-59, manufactures spurted by 8.6 per cent and 9.5 per cent in the two following years. Again when agricultural growth was negative in 1965-66 and 1966-67, manufacturing also recorded minus growth in the following two years. These data have been the subject of several studies since the mid sixties which explore the linkages between agriculture and industry, and which have been recently brought together in a macro econometric model.[35] The model throws light on the production linkages, the demand linkages and the savings and investment linkages, and shows that a 1 per cent increase in the trend rate of growth of agriculture increases the national income

growth rate from 3.3 per cent per annum to 3.9 per cent per annum, via an increase in the value added in consumer as well as basic and capital goods industries (if due to weather) plus heavy industries (if due to technology).

The decline in the agricultural growth in 1987-88 will have an effect on the manufacturing growth rate via the supply of cotton, jute, sugar cane, oil seeds etc. from agriculture to manufactures, and the supply of agricultural machinery, fertilisers, power and electricity from manufactures to agriculture and above all through the decline in the demand for manufactures that the contraction of farm incomes will involve. But the major effect will be in the subsequent year, 1988-89. For 1987-89 the industrial growth rate could fall by 2 points to 6.9 per cent and the manufacturing growth rate by 3 points to 6 per cent; unless the rabi rains improves matters, the industrial and manufacturing sector fall in 1988-89 could be steeper.

The policy of industrial liberalisation continued in 1986-87 whereby 27 broad categories of industries and 82 bulk drugs were delicensed - section 21A of the MRTP Act was used to grant exemption to MRTP companies from sections 21 and 22 enlarged by including 52 additional industries making a total 79 industries, extending delicensing to MRTP and FERA companies in 20 out of 27 industries. What have been the effect of these liberalisations on industrial growth? The general view is that the policy has began to increase industrial growth, by increasing registrations from 1167 companies in 1985 to 2336 in 1986, by increasing approvals from 3609 units to 4138, while, because of de-licensing, the number of letters of intent declined from 1487 in 1985 to 1130 in 1986, and industrial licenses from 985 to 683. New investments from MRTP companies for

industries exempted from section 21 and 22 were Rs.3288 crores for 110 companies in 1985 and Rs.4132 crores for 110 companies in 1986. SIA approvals of 1986 involved investment of Rs.10,146 crores. In use based classification, basic and consumer goods productipn increased at 8.5 and 8.2 per cent respectively compared to the previous year's 6.4 and 3.2 per cent. Among inputs based industries, chemical based industries grew by 9.5 per cent against the previous year's 4.8 per cent, and agro based industries grew by 4.5 per cent against 1.7 per cent in 1985-86.

There were also serious problems thrown up by the manufacturing sector. Probably the most serious is that the liberalised policy increased investments as noted above, but did it in non essential, luxury and fashion dominated areas. On the other hand, these producing wage goods and for export were stagnant.

Second the industrialisation of backward areas was not promoted. In 1984-85 only 40 per cent of Letters of Intent (23) granted to MRTP companies was for no industry districts, and of these 23, only four were converted into industrial licenses.

Third the liberalisation of the import of capital goods resulted in the import of Rs.747.03 crores of such goods in 1985 and of Rs.1110.92 crores in 1986. Basically the opening up of the capital goods industry to international competition, to induct advanced technology into it and so to lower capital costs of projects cannot be questioned, provided in Indian industry in the area of sugar machinery, metallic machinery, mining machinery, textile machinery, paper and pulp machinery, and machine tools generally, there is a willingness to go in for capital infrastructure, long gestation and high risk investment that the use of modern technology entails.

Fourth some of the priorities as the control place given to electronics and computers in industrial development were misplaced. The causes of industrial stagnation in the country are inadequate capital, inadequate plant and machinery, inadequate power, inadequate demand and purchasing power, and on all this computers or electronics can be used only as a corrective mechanism.

Fifth the permission to import second hand machinery under OGL was ill-conceived as it goes against the basic objective of modernisation. The result was the existence side by side of modern and second hand machinery, resulting in a confused technological situation. As CEI points out, this is a case of anti-industrialisation and is one of the causes of falling engineering exports, which grew only 3 per cent between April-August 1986, losing the comparative advantage of the country.

Sixth between 1970-71 to 1985-86 installed capacity increased by 150.4 per cent or 6.3 per cent per annum, while manufacturing increased by 135.2 per cent or 5.9 per cent per annum. Capacity is declining from 85 per cent in 1970, 80 per cent in 1985 and 79 per cent in 1986, due to capacity expansion at 6.6 per cent and production increase at only 5.4 per cent. A survey of 600 industries[36] during September 1983 and August 1984 shows that 3 industries used 0-30 per cent of their capacity, 41 used 31 to 60 per cent, 63 used 61-91 per cent, and 42 about 91 per cent.

Seventh the capital required per job is on the ascendent. The ICICI reports that in companies that it assists, Rs.32,890 is needed in fixed assets for a job in 1972-73; in 1984-85 it reports that Rs.1,30,671 is required for a job, with a job

in power needing Rs.4,41,597 and chemicals and petro chemicals needing Rs.1,33,264. Thus employment in the organised sector is becoming increasingly capital intensive, calling for even larger capital investment. These data are also supported by the reports on the Annual Survey Industries. On the other hand, the Annual Report of Development Banking in India[37] reports a noticeable slow down in industrial growth in 1985-86, when sanctions by development banks were lower at 17.1 per cent against 31.2 per cent in 1984-85. IDBI explains this decline in sanction by itself, by IFCI, and by ICICI as being due to the fact that the liberalisation policy takes time to catch up in manufacturing expansion.

There is also the problems of the insufficient demand holding back manufacturing growth. Demand constraints leading to reduced production is recorded in 20 groups of industries, ranging from sewing machines to machine tools and commercial vehicles.

Taking all these factors into account and the imperative of a 10 per cent industrial growth for the Eight Plan, if it is to reach an overall growth of 6 per cent, the Planning Commission has formulated a draft on "New Industrial Policy Initiatives" for the Eighth Plan referred to in Part I of this document. In addition to the elements set forth there, the paper proposes raising investment in railways and telecom, stimulating by government of demand in cement, paper, aluminium etc., preparing time based plans by major public sector engineering companies for upgradation and modernisation in key areas like micro electronics and bio technology, preparing by BICP of a tariff cum price policy package for the modernisation of sugar, newsprint and fertiliser industries, restricting capacity creation and expansions while basing projects on

indigenous technology, which should also enable CSIR to earn one third of its annual budget and relieve the technological constraints faced by industry.

Some major facets of the manufacturing scene may now be briefly passed in review.

Public Sector

In discussions of the Public Sector enterprises, attention is usually concentrated on those run by the Union government alone. But the latter is responsible only for 64.3 per cent of the value of output of all public sector units and only 20 per cent of all public factories in the country. The table XXVI attempts a comprehensive coverage of public sector enterprises in India.

The table XXVI shows that except for wages and salaries (emoluments) and value of output, the enterprises run by the state governments are far more extensive and deserve the kind of analytical critique and comment that the Union sector enterprises invite.

During 1986-87 the report of the Arjun Sengupta committee on the functioning of the Union enterprises made to the government in June 1986 began to be given effect to. It referred to the constraints forced by the units as due to (a) the general uneconomic structure in which they function, (b) incorrect investment divisions, (c) poor management practices, and (d) the formal and informal intervention in their functioning by government, including Parliament (the later added by me as exmember of Parliament). Its major recommendations were: to develop holding companies for industries in both the core and non core sector; to dovetail plans for

TABLE XXVI

Class	Factories (Nos)	Employment (000)	Fixed Capital (Rs. crores)	Emoluments (Rs. crores)	Value of output (Rs. crores)	Value added (Rs. crores)
1. Wholly owned by Union Government	1087 (20.1)	8155 (42.2)	8198 (35.4)	1341 (51.2)	13194 (64.3)	2395 (47.8)
2. Wholly owned by state government or local govt.	4031 (35.4)	11448 (54.1)	14582 (63)	1095 (45.2)	6590 (32.1)	2466 (49.2)
3. Jointly owned by Union, state government and local government	291 (5.4)	759 (3.6)	355 (1.6)	86 (3.6)	746 (3.6)	150 (3)
4. Total Public sector	5409 (100)	4116 (100)	22134 (100)	2423 (100)	20531 (100)	5010 (100)

Figures within brackets show percentage.

Source: CMIE: Public Sector in India

coal and lignite, crude, petroleum and gas, power, steel, non ferrous metals and fertilisers into the national plan: to determine wages on an industry basis: to appoint chief executives for 5 years: to close loss making units: and to revise prices periodically when the nature of the product justifies it and to phase out price preference of over 5 years. Few of these recommendations have been accepted by government and those which the government accepted have run into resistance from the management, or the private sector, or state governments or trade unions.

The reports of the Bureau of the Public Enterprises for 1985-86 and 1986-87 run on similar lines. The 1985-86 report refers to the 8.2 per cent average annual growth in sales and 17 per cent growth in investment. 211 major public enterprises report a net profit of Rs.1200 crores in 1985-86 and Rs.177 enterprises Rs.2000 crores in 1986-87. Nearly 50 per cent of the profits in both years were those of the petroleum sector - Rs.1651 crores in 1985-86 and Rs.1762 crores in 1986-87. The other 197 enterprises made a loss of Rs.452 crores in 1985-86 and Rs.1027 crores in April-September 1986-87. The coal companies increased their net losses to Rs.386 crores in 1985-86 and Rs.400 crores in 1986-87. The textile companies reduced their net losses in both years to a little less than Rs.110 crores for each year. The 51 sick nationalised enterprises have incurred net losses of Rs.257 crores, their net accumulated losses being Rs.1704 crores.

There is one caveat that should be entered on this summary of the functioning of the Union public sector enterprises and that relates to the profit and loss norm which is used both in the Annual reports of the Department of Public Enterprises and in the above paragraphs. There

are three sets of problems, some of which apply to all enterprises, whether in the public or private sector, but all of which apply to the former, making analysis and generalisations difficult. First there are accounting problems involved in some items like tax and interest shown as cost not being real costs, similarly some benefits like transport provision not being real benefits, while some costs such as the opportunity costs of using the working capital are not reported or are reported incorrectly as in the estimates of inventory and capital stock. Second there are problems concerned with pricing, such as the varying subsidy or tax element in administered prices, and the inclusion of non commercial objectives or their relation to externalities in fixing prices. Third there are attribution problems involved in a change in price to reflect a rise in input cost, the changing market condition of boom or recession, or the size of enterprises if they are of sub optimal size, or the inherited problem as in the case of NTC. These three groups of problems suggest that in addition to the computation of profits, bearing in mind the above limitations, (and there is no real escape from expecting a net profit return of 6-8 per cent on the capital invested), some complementary indicators of the state of health of a public sector enterprises could be used such as the productivity of individual factors, cost effectiveness, some accepted business ratios such as the ratio of inventory to sales, as well as the usual performance indicators such as labour productivity, the relation of the rate of production to capacity, and to the number of labourers. This would mean paying greater attention to improving the performance of existing enterprises through performance evaluation involving computing the returns at current prices or through a combination of the three. In any case, the judgement of the public sector on the basis of its returns - carefully defined - is inescapable.

This issue of the net returns of the public sector becomes critical when the Plan assumption of generation of internal resources by the sector arises. For the Seventh Plan, as noted earlier, the public sector is expected to generate Rs.35,485 crores at 1984-85 prices. Of this, the amount to be raised by the Union public sector enterprises is Rs.23,013 crores. For 1985-86 they were expected to raise Rs.3438 crores, against which they generated through net retained profits and depreciation provisions a gross Rs.4218 crores from which the Rs.1094 crores loss of the losing enterprises have to be deducted, so that for the year their net resources generation was Rs.3124 crores. For 1986-87 the public sector is expected to raise Rs.3786 crores and as of December 1986 (the first 9 months) are reported to have raised Rs.2586 crores. When expressed in 1984-85 prices, the shortfall in resource generation for the two years is likely to be of the order of 20-25 per cent. For the first 3 years, the Planning Commission estimates generation of 39 per cent of the target. This may be one of the reasons why some of the enterprises have been the first time, permitted to enter the capital market. For 1985-86, they raised Rs.420 crores through non convertible debentures/bonds and for 1986-87 raised Rs.2016 crores which is 44 per cent of the total capital issues of the both the public and private sector companies. This does raise the problem of the public sector crowding the private sector out of the capital market, an issue referred to earlier.

Private Sector

Two major issues concerning the private sector for the years 1985-86 and 1986-87 are reviewed below.

All the surveys of performance of the private sector companies for the two financial years by RBI, IDBI, CMIE, IIPO show that on the whole 1985-86 was a good year.

The RBI survey for the year 1985-86[38] which covered 541 large public limited companies reports improvements in value of production, value added, profits, investment in fixed assets and an increase in profit making companies. Gross profits were 20.6 per cent, net value added 16.2 per cent, value of production and sale increased by 15.4 per cent and 14.3 per cent respectively. Only on three items was the record lower than that in 1984-85. Fixed assets, both gross and net, increased at lower rates at 12.2 per cent and 10.4 per cent compared to the previous year's 13.3 per cent and 11.3 per cent. Similarly exports declined from 26.47 per cent to 6.9 per cent and foreign exchange expenditures showed a sharp rise from 8.2 per cent in 1984-85 to 35.6 per cent. Operating profits registered a rise of 26.6 per cent, as did pre tax and post tax profits. The debt equity ratio declined to 77.7 per cent but after the adjustment for the amount of revaluation reserve, consequent to the revaluation of fixed assets, the debt equity ratio rose to 106.4 per cent. The really disquieting feature reported was the increasing reliance of the companies on external sources for financing their assets formation from 54.9 per cent in 1984-85 to 64.1 per cent in 1985-86. Most major industries - cotton textiles, foundaries and engineering workshops, ferrous and non ferrous metals recorded improvements on all indicators, but tea, aluminium and chemicals show declines. Others like sugar, tobacco, shipping, motor vehicles had a mixed record.

Similarly CMIE's survey the working of 721 companies in 1985-86[39] show not only increased sales (+8 per cent), profits before interest and tax (+24 per cent), net profit after tax (+47 per cent), and increase in gross fixed assets as percentage of stock of gross fixed assets (+24 per cent). Its further comparative survey of 671 private sector companies with 119 public sector enterprises [40] shows that total net assets and net value added are higher for public sector enterprises operating profit improved in the public sector units but declined in the private sector; sales were higher in the private sector; the return on capital was 6.5 per cent in the public sector and 9.6 per cent in the private sector; the ratio of net value added to value of production was 20.9 per cent in the private and 20.6 per cent in the public sector; borrowed funds constituted a smaller share (36 per cent) in the total finances of the private sector, while it was 40 per cent in the public sector; the closing stock of inventories was 26 per cent of assets in the private sector and 24 per cent in the public sector; and gross capital formation was 74 per cent of total increase in gross assets in the private sector and 68 per cent in the public sector. Two comments may be made on this comparative study. First it seems that we are comparing the incomparable when comparing 671 private sector companies with 119 public sector enterprises and to that extent this macro study results must be used with caution. Second within this limition, this global weighing of public and private sector corporate performance shows that they are not too far apart.

The survey of 650 large companies in 1984-85 by Commerce[41] also reports an increase in total assets (13.79 per cent) in set sales (10.9 per cent), rise in operating costs (on sale +12.1 per cent), depreciation (+30 per cent), interest

(+11 per cent), corporation tax (+9.2 per cent), so that net profits fell by 28 per cent, operating profits of percentage of assets declined from 10.26 per cent in 1984-85 to 4.8 per cent, and the return on investment fell sharply from 3.07 per cent to 1.94 per cent due to the erosion of the return on sales and the worsening of this turnover ratio. These last data on net profits and return on investment strike a different not from RBI & CMIE surveys as well as that of the IDBI.

IDBI in a study of the operations in 1985-86 of 401 companies[42] assisted by it reports all round improvement; 15.9 per cent increase in sales; 26.3 per cent increase in profits; 38.1 per cent rise in profits after tax; 50.8 per cent increase in retained profits; increase in profit margin from 9.6 per cent to 10.5 per cent; gross fixed assets plus inventories increased by 17.6 per cent, exports of 154 companies increased at 7.5 per cent which was lower than the 9.7 per cent of the previous year. The Bank attributes this improved performance of the corporate sector, (its survey encompasing 39 per cent of the paid up capital of the private sector of public limited companies) to better capacity use which increased from 59 per cent in 1984-85 to 63 per cent in 1985-86.

The other major development is the introduction of the companies (Amendment) Bill towards the end of the monsoon session of the Rajya Sabha. The amendments are badly needed to introduce a certain degree of clarity and credibility in the revaluation of fixed assets, inflation accounting and revaluation of reserves by the companies. On these, there are no specific amendments proposed and it is to be hoped that the Company Law Board which is to be strengthened will

have considerable powers delegated to it from the government and the courts along with the clauses ((i) of clause 46 and others) which provide for whole time directors/managers to be appointed according to certain norms, which will professionalise the managements and so remove some of the misleading elements from the company balance sheets. Then there is also the ambiguous way interest is treated, capitalising it after the capital has been used and production is under way. This has not been specifically provided against in the amendment, but now the strong objection by chartered accountants of this practice will, it is hoped, be supported by the Company Law Board. A third area of deceit in company accounts (which makes the surveys of RBI, IDBI, CMIE etc. of the accounts somewhat unreal) is the dressing up of profit and loss accounts either by not providing for depreciation to show a profit where one does not exist, or to show it at a higher rate in order to obtain higher tax deduction. Here the amendment proposed will help. The separate set of depreciation rates prescribed under Schedule XIV is divorced from the provisions of the Income Tax Act and will force the company to draw up a 'true and fair' picture of the value of its assets. There are a lot of concessions and reliefs in depreciation rates under the Income Tax Act, which makes it difficult to ascertain the real assets value and life. This delinking of the depreciation rates for filling under the Companies Act from that under the Income Tax Act will introduce honesty and realism in depreciation provisions by companies. Finally there are innumerable areas of divergence of interests between management and shareholders, with the management doing what it likes, quite often against the interest of shareholders. Here in the amendment, the Company Law Board is vested with powers to protect the interest of shareholders such as in the case of non repayment of public deposits, providing for the compulsory redemption

of preference shares, requiring companies to disclose reasons for not registering share transfers and protecting the rights of the transferee till this is done, and providing for the compulsory listing of all public issues with recognised stock exchanges. There are also clauses proposed for reducing the wasting of money through providing for abridged versions of the balance sheet and profit and loss accounts, paying for provision of the unabridged versions, and doing away with notices wastefully sent to debenture holders. These set of amendments to the Companies Act are needed and should be adopted. But given the fact that companies have increased today to over 50,000, that the number of share-holders and debentures holders has jumped several hold, that just one company claims 20 lakh shareholders, and above all given the rapid change in technology, in the evolution of new financial instruments and the growing consciousness about cost, benefits and efficiency, and the disquieting comments of the chairman of the committee, Justice Sachar, whose report formed the basis of these proposed amendments, a completely new Companies Act is needed to promote healthy corporate development, including safeguarding the interests of the shareholders.

Sickness

Sickness among manufacturing industries is spreading seemingly irreversibly. The table below presents a summary picture of this spreading industrial sickness.

TABLE XXVII

As at December end	Large		Medium		Small Scale		Total	
	No.	Outstanding Bank credit (Rs.crores)	No.	Outstanding Bank credit (Rs.crores)	No.	Outstanding Bank credit (Rs.crores)	No	Outstanding Bank credit (Rs.crores)
1980	409	1342	992	178	23149	306	24,550	1826
1981	422	1479	994	188	25342	339	26788	2026
1982	444	1791	1778	226	58551	569	60173	2586
1983	491	2041	1256	358	78363	729	80110	3101
1984	545	2330	1287	429	91450	880	93282	3639
1985	637	2980	1184	220	11783	1071	119606	4271
1986	-	-	-	-	-	-	130606	4665

Source: RBI Annual Reports

The Reserve Bank points out that Rs.4665 crores are locked up in sick units as at June end 1986, represents 8.4 per cent of total bank credit and 17.1 per cent of bank credit to large, medium and small industry - which is one indication of the widening constraints faced by manufactures.

Now the infrastructure for dealing with sick industries has gone into operation. It was elaborated in the last mid year review - the Sick Industrial Companies Act of 1985 and the institutional set up for its enforcement which is the Board on Industrial and Financial Reconstruction (BIFR). The most worrisome aspect of the industrial sickness scene is the report of the banks that as of December 1985 only 569 units (7.16 per cent of all sick units) are viable, and another 11,975 (10 per cent) have their viability yet to be determined. This means that 83 per cent of the units, that is 99,062 units owing Rs.1790.73 crores are non viable. This applies particularly to small units. Of the 1,17,783 sick small units, only 7839 owing Rs.244.98 crores are viable, whereas the majority of large units - 350 out of 552 owing Rs.1137.13 crores are viable. The question must be faced about closing down this large number of unviable units.

Secondly the sickness in all units is due to factors which are internal to the economy; it has not been imported from the outside: it is not due to competitive dumping. And the state has a basic responsibility for this growing sickness, as the state decided the entry into and exit from industry of each unit, and so the state has to play the major role in the restructuration - rehabilitation in nursing back to health or closing down these sick units.

Third the 1985 legislation makes an important decision in shifting the onus of responsibility for sickness from finance to management, as the latter, and not adequacy or inadequate of credit and finance, is at the root cause of sickness. That is why the Act requires that a) the Board of Directors of a company going sick should report to BIFR within a year of the receipt of the auditor's report, b) the Board on Industrial and Financial Reconstruction is authorised to send a financier to the sick unit in order to report to it within 60 days, and to nominate one or more special directors on the sick company's board. Further when accumulated losses erode 50 per cent of the net worth of the company over the previous 5 years, the board of management is required to report to BIFR within 60 days and the final management sanction is the power given by the Act to vote out the management.

Fourth this analysis and proposed remedy is good as far as it goes. But really we are in the dark as to the causes of sickness. Despite the problem having been with us for over 7 years, there is almost complete lack of data on the problem. RBI publishes global figures by industry and by state which in a sense hides more than it reveals. There is no data on the age, the financial frame, size distribution and performance indicators of sickness, on the basis of which alone both policy and disaggregated corrective action can be devised. BIFR should speedily correct this lacunae in the data base of the programme. To start with, the Board can use the auditor's report to fill in this lack of data. CMIE tries this and has established 15 groups of such industries, starting with textiles (26 per cent), sugar (16 per cent), jute (10 per cent), paper (6 per cent), castings and forgings (6 per cent), concentrated in Maharashtra (28 per cent), West Bengal (10 per cent),

Gujarat (14 per cent) and UP (6 per cent).[43] There is a gap tree, for Tamil Nadu ought to come in before Gujarat. But all this is only received wisdom on which we have acted but made no progress. Hence one of the priority tasks of the Board is to start with developing the data base of this programme.

Small Scale Manufactures

Small scale manufactures play a major role in the economy. Its major features in 1985-86 are: production valued at Rs.57,000 crores, employment at 96 lakh persons and exports of Rs.2630 crores. Small scale industry is composed of (a) traditional industries which include khadi, village industries, handloom, sericulture, handicrafts and coir which produced Rs.8230.82 crores, exported Rs.2320 crores and employed 174.95 lakh persons; for 1986-87 the targets are Rs.5868.26 crores, Rs.2616.90 and 187.09 lakh persons respectively. b) modern small scale industries which comprise small scale industries and powerlooms which produced Rs.6949.34 crores, exported Rs.2630 crores and employed 127.80 lakh persons; for 1986-87 the targets are Rs.67917.79 crores, Rs.2950 crores and 135.2 lakh persons.

In 1985-86 IDBI set up the Small Industries Development Fund with a corpus of Rs.2500 crores to i) assist the development, expansion, diversification, modernisation and rehabilitation of small units, ii) give priority to rehabilitate sick units and iii) aid the Small Scale Industrial Development Corporations. Its assistance is to be through refinancing, and bills rediscounting schemes aimed at doubling from Rs.4075 crores to Rs.8150 crores. Refinance limit is Rs.1 crore, with low interest rates provided for rehabilitation finance. Similarly the composite loan

scheme limit has been raised as also the limit of special capital schemes. The procedure for rediscounting bills has been simplified by not requiring that the bills be deposited with the banks. These procedural simplifications and reforms are to be welcomed, as the Small Industries Development Fund itself does not bring additional funds to aid small industry. Its corpus of Rs.2500 crores is not fresh money but include IDBI's existing funds for refinance, seed capital and rediscounting which amounted to Rs.2400 crores, so that the additional resources are only Rs.100 crores.

One of the important mechanism to promote small industry, namely, the District Industries Centre (DIC) was the subject of a rather discouraging review by PAC whose findings are: DICs have not been able to promote their three main aims of industrial decentralisation, growth of entrepreneurship and creation of employment opportunities in rural and semi-urban areas; ii) there has been a serious time lag in restructuring DICs which should have been completed by October 1985 but is still unfinished at the end of 1985-86, in particular the unfilled vacancies of 1141 out of 1191 project managers posts iii) the utilisation of released funds has been tardy, with Rs.364 lakhs remaining unspent as of March 31, 1985, which is attributed to complex procedures, leading to the reform and lightening of the margin scheme; iv) the absence of machinery as infrastructure to help the artisan, small and tiny units, and the KVIC, the All India Handloom and Handicrafts Boards which were to help, but did not, as each functioned bureaucratically as a self contained unit; v) the district action plans were not based on district surveys; vi) not even 50 per cent of the projects recommended by the DICs were sanctioned by the banks as the headquarters of the banks insisted on rechecking the projects examined and approved by their rural branches. The review, however,

rightly ends by commending the DICs for their potential for production, growth and employment.

The problem of the DICs are the problems faced by all small industry in the lack of local purchasing power, inadequate credit, poor infrastructure, ill equipped local institutions and competition from large scale mass produced goods of large firms in this last constraint, the advent of mass electronics and its application to industry will mean that mass production will be replaced by smaller batch production in more differentiated products, due to the flexibility and miniaturisation of the new technology. This opens up new vistas for small scale production in textiles, garments, CNC machine tools and such like.

Some of the manufacturing sub sectors which raise questions in regard to their functioning in 1986-87 and/or in relation to 1987-88 may now be briefly passed in review.

Capital goods The capital goods industry faced serious problems of survival in 1986-87. While capital goods imports surged from Rs.747 crores in 1985-86 to Rs.801 crores in the period January-July 1987, the indigenous capital goods industry's growth rate slumped from a low 3.3 per cent in 1985-86 to less than 2 per cent in 1986-87. Capital goods imports were 70 per cent of domestic demand in the 50s, 60 per cent in the 60s, declining to 15 per cent in the 70s, but jumped to 25 per cent in 1986-87, with a decline in the industrial share of engineering industry from 33 per cent to 27 per cent. In 1980, 80 per cent of machine tools was met from domestic sources, in 1986 this percentage was less than 50. In the name of modernisation and technological upgradation of both established and sunrise industries there was deliberate discrimination

against the Indian capital goods industry which had to pay excise, while the import of foreign capital was admitted customs free. In November 1986, the government placed 43 capital goods items in OGL and 5 items of components and consumables, and against the advise of the Planning Commission, the Industry ministry and the Prime Minister's Economic Advisory Council went in for import of capital goods, including integrated steel plants against global tenders. There is the glaring case of the import of power equipment, in which BHEL has an international standing, having won 2 global tenders for the supply of 500 MW sets, but will be using only 45 per cent of its thermal and 30 per cent of its hydel sets manufacturing capacity at the end of the Seventh Plan when the supply - demand gap for power will be 10,000 MW. The reason given for not using BHEL to meet this demand is lack of Indian resources, which, of course, is the consequence of not using the tax instruments and trying to make up for it by talking about the private sector entering this area (which talk has gone on now for 3 years and not produced any action), seeking bilateral assistance from USSR, Canada, UK and using the World Bank loans for inviting global tenders. This is an opportune for world power equipment manufacturers to dump their capital goods in India, for they have a capacity of 120,000 MW per annum and face a recessionary demand of only 35,000 MW. So the Indian market is attractive and has so far attracted $3 billion from these countries. In the 1987-88 budget, the government tried to correct this flooding of the capital goods market by foreign goods, but the effort was too little and too late. All the imports - even for captive pilot plants - had been made. The way out is clear: to stop the import of capital equipment in sectors where there is an accepted Indian capablity.

Machine tools and Engineering The machine tools sub subsector is part of the capital goods sub sector discussed above. The one relieving feature in this sub sub sector is the record of the public sector, Hindustan Machine Tools, located in Bangalore, Pinjore, Kalamassery, Hyderabad and Ajmer, which produces only 26 per cent of the country's machine tools, but its value added is 46 per cent because of its higher technological sophistication, particularly in electrical machinery and transport equipment. The rest of the 151 units with an installed capacity of Rs.405 crores face a number of problems. First to attain the Seventh Plan overall 5 per cent growth, manufacturing industry must grow at 8 per cent and machine tools at 15 per cent, to reach the Seventh Plan target of Rs.765 crores. Within the current production of Rs.300 crores per annum (the real machine tools are only Rs.200 per annum), the machine tools industry will miss the target by a long chalk. Second there is an increasing demand by user industries for import of CNC and tool room machine tools. The sub group on machine tools has set a goal of producing 75 per cent of CNC machine tools indigenously by 1990 because CNC technology imports are flooding the country. In particular areas, the metallurgical machinery faces the problem of its scale of production being small, and its technology upgradation calls for large and continuing foreign collaboration in drilling equipment there is insufficient capacity which foreign firms take advantage of: in textile machinery the 1986-87 production was Rs.268.34 crores which the domestic mills are not absorbing: in paper and pulp machinery, the 32 units producing Rs.29 crores is adequate: the 16 units producing cement machinery are doing well, with a capacity of Rs.130 crores and 1986-87 production of Rs.110 crores. They need to carry out productivity improvement and fuel savings,

increase their R & D and cut back on the import of vertical roller mills; printing machinery with 18 units (capacity of Rs.20 crores) and production of Rs.18.70 crores in 1986-87 faces a demand-supply gap; in pollution control equipment a start has been made and it needs to be expanded, if demand actualises; similar limitations face the production of trooning equipment and hydro electric equipment. The machine tool industry which is characterised by rigid product specifications, long production runs, large inventories and highly inflexible manufacturing system now needs a) economies of scale, b) short production runs, and c) high performance controls to increase productivity, ensure high quality and maximise tool life. The major problem of the industry is that the demand for its CNC tools is declining because of their inadequate technology. The user industry wants tools which can ensure higher productivity and quality. To get out of this trap, the user industry will have to prefer the Indian tools and for that, the Indian machine tools should be given a short term investment allowance, so that they can produce CNC tools of high technology.

Automobilies The automobile market in 1986-87 presented 6 main features. First, following the Maruti example, there was a flood of new entrants, increasing Japanese collaboration, which with the appreciation of the yen sent up costs, and the extension of broad banding to this sub sector which turned the sellers market of 1985-86 to a buyer's market in 1986-87 and continuing into 1987-88. Passenger car production escalated from around 50,000 a year to 134000 in 1986-87 with Maruti, Premier and Hindustan Standard being the main manufacturers. This first feature raises some broader questions about the new industrial policy. Does that policy give priority to consumer durables used by the rich and upper middle classes? As the producers

are now concentrated to 3 majors, does the policy give free rein to large firms functioning in oligopolistic markets? Does the policy call for a socially regressive tax system wherein direct taxes are reduced to enable the rich to expand this market and indirect taxes are 'rationalised' to increase the profits of the oligopolists? Does the policy in its external aspect require easy access to foreign technology, major emphasis on exports, and emasculating the domestic market through reduced customs tariff to encourage imports? Even in the new found craze for Japanese collaboration which dominates the automobile sector (and against which US and Europe are struggling to gain a foothold), the fine print in the collaboration agreements restricts adaptation, inhibits assimilation, restricts exports of the resulting product, makes obligatory the purchase of capital goods and components from the foreign collaborator, increases social costs, and imposes no sanction on lapses of the foreign technology supplier. The result can be seen in Maruti's schedule of indigenisation, which after 4 years has reached the stage of 4 per cent, while the agreed target is 51 per cent. Even this 4 per cent indigenisation includes use of Japanese supplied components, which makes true indigenisation only 2 per cent The government should apply its own decision to this flagrant breach of agreement and withdraw all duty concessions until the indigenisation schedule is respected.

The other sectors of the industry record varying progress in 1986-87. Light Commercial vehicles were produced mainly by TELCO and Bajaj at 38,900 against a target of 40,000, which has led to the 1987-88 target being reduced from 75,000 to 45,000. The 4 new entrants into this production segment and Japanese collaboration,

faced all the problems referred to in the previous targets, and could produce only 6608 against a target of 50,000. In the medium and heavy vehicles group, demand was stagnant and so the two main producers -- TELCO and Ashok Leyland reduced output. In the Jeeps segment, Mahindra and Mahindra is dominant, producing 29,000 numbers, with Maruti just entering the area with 6400 produced in 1986-87. The three wheeler area is stabilised with an output of 56,000 in 1986-87 by the 2 main units, Bajaj and Automobile Products. It is in the 2 wheeler area that there is complete chaos, -- and it is ironic that the World Bank in its World Development Report 1987 should hold up this segment as the model of production when freed from government control.[38] The capacity in this segment is 3.5 million, the demand and production is less than 14,000, and the 42 units which have rushed in, many with Japanese collaboration, are rapidly closing down and will be around 10 by the end of the Plan.

Steel In the steel sub sector, the plans for modernisation need to be urgently implemented, because except for the Vishakapatnam Steel plant, all others including the latest, Bokharo and Bhilai, face obsolescence. Durgapur is a prime example of obsolescence, with its steel making process which was outdated when installed by the UK, to which should be added the coking coal and DVC power problems, and its sub optimal 1.6 million tonnes capacity. This means that the policy of consolidation for the steel sector that is being proposed is wrong, as that would be consolidating obsolescence. In this connection, the USSR's offer to modernise Bokaro on a turn key basis raises some problems. Why should it be modernised before the current programme of expanding it to 4 million tonnes is completed? Is the proposal for modernisation because the earlier advise of our consultant, Dastur & Co. of the eventual technological obsolescence of

our ingot casting route was then ignored and is now being accepted? Why is the modernisation to be on a turn key basis? Is it because of the lack of domestic resources, or is it because of lack of confidence in Indian design and engineering firms? A second issue concerns steel prices, which were the lowest in the world till the late 60s, they have become the highest today. Since June 1980, the price of steel has been raised 10 times. This rising trend is attributed to: increased prices of primary inputs like coking coal (150 per cent), iron ore (95 per cent), power (140 per cent), so that the share of raw materials in production costs went up from 32.8 per cent in 1980-81 to 36 per cent in 1985-86; increased taxes and levies and administered prices; and obsolescent technology seen in the ash content of coking coal and percentage of sinter feed being higher than that assumed in the product report, as in the case of IISCO which uses 2.2 tonnes of coking coal per tonne of steel and other plants use 1.1 to 1.7 tonne because of inadequate maintenance and run down equipment; also energy consumption is 50 per cent higher than that required in other countries and instead of meeting heat requirements internally rely on naptha, tar and furnace oil heat. Thus a combination of inefficient operations and obsolescent technology is sending up costs and prices. A third issue relates to the supply-demand balance. On the basis of the current capacity of integrated and mini steel plants amounting to 15 million tonnes, it is forecast that in 1986-87 supply will be 10.7 million tonnes and demand 11.9 million tonnes, in 1989-90 supply will be 13 million tonnes and 17.7 million tonnes and in 1990-2000 19.2 million tonnes supply and 22.5 million tonnes demand. Even this reduced demand profile developed by the Planning Commission faces 2 problems: first the long term dependence on steel imports; second the availability of the Rs.15000 crores investment that the supply projection

involves is doubtful in terms of internal resources generation, the steel development. Fund and the capital market, so that the resulting commercial or concessional borrowing will further send up prices. Finally while the 1987-88 steel production in the first quarter, April-June - records a heartening increase of 21.6 per cent and 15.3 per cent for April-August, steel castings production has fallen to 80,000 tonnes against a capacity of 2 lakh tonnes of its 75 units, due to recession in machine tools, ship building and other capital goods industries. The way out is for the segment to take up specialised steel castings for which there is a growing demand, and on which IDBI is formulating a package to help the units with long term capital at 5 per cent interest from term lending institutions, while the government is extending to the sector broad banding to provide it with flexibility and ensure optimum capacity use.

Non Ferrous, The Aluminium demand-production position during the Seventh Plan is undergoing a change as the table below shows:

TABLE XXVIII

(000 tonnes)

Year	Demand	Production	Difference
1985-86	338	266	-72
1986-87	368	289	-79
1987-88	400	393	- 7
1988-89	436	483	+47
1989-90	475	499	+24

Source: Planning Commission

With the Commissioning of NALCO, aluminium capacity will increase by 2.18 lakh tonnes a year and alumina by 8 lakh tonnes. Faced with this surplus, the government has liberalised licensing for manufacture by down stream units of aluminium semis, alloys, extrusions, rolled products, powder etc, is reviewing the stipulation of the units producing 50 per cent EC grade aluminium as the State Electricity Boards do not have the funds to buy it. The problems faced by the industry are a) pricing, which it feels is fixed by the government without allowing for generation of cash for expansion and/or modernisation, b) power shortages and continuous hikes in power tariff, c) the obligation to produce 50 per cent EC grade which is not lifted by the Electricity Boards, d) and control over fabrication and distribution. In 1986-87, phase I of NALCO was launched, under which the bauxite mine was completed in November 1985, the alumina refinery was ready for an integrated start up, the smelter plant and conversion into aluminium was ready, and the first 120 MW captive plant put into operation in December 1986, the second 120 MW plant readied by April 1987. Upto December 1986 the cumulative expenditure on the plant was Rs.2062.58 crores. Now the search for customers for this massive aluminium product begins. Hindustan Zinc increased its 1986-87 production by 5 per cent to 63000 tonnes and lead by 15 per cent to 20,000 tonnes. The domestic production of zinc meets 50 per cent of domestic demand and lead 40 per cent. Both are moving in the right direction, but may not attain the Seventh Plan objective of zinc meeting 60 per cent and lead 45 per cent of the demand. Hindustan Copper increased its sales by over 30 per cent to 50,000 tonnes in 1986-87, which was a little less than 50 per cent of demand. Its plan to further increase production through debottlenecking, integrated development of the copper belt in Bihar, and setting up a continuous casting copper rod plant with a capacity of

36,300 tonnes are on the right lines. Non ferrous metals in 1986-87 were available to producers, the indigenous production being supplemented by imports. As this will be the situation for all of the Seventh and Eighth Plans, except for aluminium in which the country will not only be self sufficient but will have an export surplus, the sale price should be identical for both indigenous and imported other metals. In the case of aluminium, the imported metal has a higher price to help NALCO sales. But there is no reason for indigenous copper prices to be so high, as the country will never be self sufficient in copper.

Textiles. The 3 year textile Policy analysed in the last mid year review has failed to help the industry and its provisions have not been carried out. The failure to supply cloth at "affordable prices" was noted in the cotton section earlier. The policy's promise of price stability of cotton has not been kept, with cotton prices being below official support prices in 1985-86 and shooting up in the later part of 1986-87 to levels which have added to the costs of mills and made several of them unviable. Till September 1986, spinning mills did well because of the strong demand for yarn, but most of the 110 NTC composite mills and 40 per cent of the 170 private sector composite mills made losses. The new textile policy which was eulogised by the textile industry as progressive, far sighted etc coincided with a period of low cotton prices. rose, offtake of textiles became sluggish, smuggling took place of synthetic textiles from Nepal and Bangladesh which was meeting as much as one third of the domestic demand, along with structural deficiencies, management inadequacies and marketing inefficiencies, so that mills lost out to power looms. In 1986-87 textile production was 12,773 million metres, of which the mill sector's share was 26 per cent compared to 75 per cent in 1955-56, powerlooms share increased

to 48 per cent and handlooms were stagnant at 26 per cent. A working group has been set upto review the sectoral targets as the powerlooms at 6149 million metres have already exceeded its Seventh Plan target. The Textile Policy promised a flexibility fibre policy which on the one hand, smuggling, inadequate modernisation, and absolete technology have made impossible, and, on the other, has led to high prices and abnormal profits in the use of polyester fibre yarn PSF and PFY, reducing their abnormal profits through reducing customs tariff, which with placing them on OGL, will encourage imports. The government has not acted on these recommendations, and so the PSF and PFY manufacturers continue on their profit making spree. On the other hand, the Policy's provisions on wool have led to confusion on capacity expansion, delay in modernisation urgently needed which is held up, because of the high customs duty imposed in the 1986-87 budget, and unused imports of 19-20 million kg of raw wool from Australia and New Zealand resulting in a steep fall in exports. The Policy also referred to financial assistance for modernisation and the closure of unviable mills identified by IDBI. What has happened is pathetic. IDBI set up a Rs.750 crores textile modernisation fund on 1 August 1986, and as on 16 April 1987 Rs.187 crores were sanctioned from 47 applications, out of which Rs.31.97 crores have been disbursed. The profit margin of the mills is low, that they are not able to service the principle and interest of any loan from the modernisation fund. The IDBI has identified 41 non viable mills, but contrary to the textile policy statement not one has been closed, nor their workers redeployed. Garment exports on the other hand, are a success story, in 1986-87 reaching a record of Rs.1510 crores and setting itself a target of Rs.2500 crores for 1990. But even this is small in the world textile trade, as India's share is 2.4 per cent of it, compared to the 20 per cent of the island city of Hongkong. Another

unanswered question is whether NTC with its 109+16 mills should be revitalised. Its losses upto March 1986 are Rs.717 crores plus Rs.770 crores in interest owing. Government has till now spent Rs.1075 crores on the NTC mills, all of which have been made sick by the private sector. As far as these mills are concerned, the governments decision to establish 1987 as the year of profit has a tragi-comic element, in view of the excess labour force, outdated machinery, technical backwardness of the product mix and poor management of the mills. There is no question of profit making in this NTC segment, and the governments' use of the term modernisation is empty rhetoric as far as these mills are concerned. On the other hand the question should be asked as to why the government does not close down these pereniallly loss making mills, if the promise to this effect in the textile policy was a serious one. the textile sector, and its 3 components of 855 spinning and composite mills, 10 lakh powerlooms and an unknown number of handlooms are set up to produce 25,000 million metres of cloth a year. Actually for the reasons referred to earlier, not over half of that is being actualised.

<u>Jute textiles</u> The jute textiles industry whose production declined from 10.28 lakh tonnes in 1985-86 to 9.81 lakh tonnes in 1986-87 faces a number of problems which need early attention and should result in a long term policy. First the industry faces short and long term competition from synthetics, whose prices are falling, while those of jute are rising. The decision of the government that from 1 June 1987, foodgrains and sugar should be packed only in jute, cement to the extent of 70 per cent and fertiliser to the extent of 50 per cent, is not only resisted by the railways and the producers of the goods concerned, it is strictly a one year or two or three year remedy, as the

superiority of synthetic material in terms of cost and durability cannot be resisted in the long run. Second the production, profits and investments in the industry fluctuate widely from year to year. Production, being a function of the supply of raw jute, fluctuates with the annual jute harvest. In regard to profits, due to favourable domestic and overseas demand profits were high for 4 years and dipped during 3 years due to falling export demand. Third there is an uneven development of exports, which not only causes variations in prices, but which faces competition from more enterprising Bangladesh mills. Fourth sickness is growing rapidly in the industry, involving large cash losses and adverse debt equity ratios. Fifth exports are on the decline and seem to be irreversibly so. They were 70 per cent of production in 1978-79 and 20 per cent in 1985-86. Under these conditions, a long term policy for jute textiles, will have to comprise: a) closing unviable units and retraining and redeploying the workers concerned, as declared in the textile policy and repeatedly declared as policy by the government, but on which, because of Trade Union pressure, today not one unviable unit has been closed. b) a programme of diversification which will move it away from sole reliance on textiles to such things as decoratives and wall carpets and c) on this basis, there should be a programme of modernisation, which will replace its antiquated over a hundred year old machinery by new modern processing equipment now available, which will produce the diversified products of higher quality.

Tyres and Bicycles In 1986-87, the installed capacity of tyres was 17.65 million pieces and production was 13.5 million. The Seventh Plan target of 23.93 million calls for a capacity of 27 million, whereas total capacity today is 31 million. There is no case for expanding capacity,

but the trend of the manufacturers who function like a cartel to reduce capacity use to 57 per cent in 1986-87, so resulting in a high unofficial premium on bus and truck tyres needs to be watched. Exports for the year were Rs.75 crores and the question of reducing exports to stop the rising trend of prices has been raised. This question of rising tyre prices, and the demand of the tyre manufactures for a further rise in price to compensate for the rising costs of inputs and increasing taxes was referred to BICP, which after review of the cost structure of industry in its interim report stated that the increase in tyre prices in March 1985 was more than the rise in production costs resulting from the 1985-86 budget. and in its final report stated that the 9.1 to 16.6 per cent increase in March 1985 prices was unjustified, as the budget levies had little impact on input costs, including the hike in railway rates and petroleum prices, while there were no additional levies on natural and synthetic rubber, carbon black and nylon cord. It concluded that the impact of all duties - direct and indirect - and the rail freight hike was 1.2 per cent of the production cost. It states that there is no case for the post budget tyre price rise and as the producers are acting as an oligopoly, MRTP should probe the situation. In the bicycle area, the 10 large and 50 medium units in the organised sector produced in 1986-87 7 million bicycles against a capacity of 8 million. There are 3000 units in the small scale sector who do the assembling. Bicycle and bicycle components exports in 1986-87 were Rs.60 crores, the Seventh Plan target being Rs.250 crores. There is need for India to get a larger share of the Rs.3000 crore world bicycle trade and for this, larger companies should be permitted to enter the field with the obligation to export 60 per cent of their product, and a portion of the foreign exchange earned should be allowed for promotional purposes and as a means of the industry manufacturing light weight cycles and

components which are in demand abroad. This also requires intensified R & D at the Ludhiana centre to upgrade the technology of the small sector and making available good quality steel to the manufactures. The Eighth Plan target is a modest 10.5 million bicycles, for which additional licenses for 2.5 million have been issued.

Fertilisers and chemicals To start with Fertilisers, the production and demand pattern are somewhat in a mess as the table XXIX shows. The table points in 2 different directions. The first 3 columns of the table show
a) steady capacity expansion, b) rapid increase in demand, c) some waste of fertilisers in paddy use and productive use by wheat farmers, and d) if gas based plants paid normal rates to ONGC, urea price will be 50 per cent of current price and can be exported. The conclusion drawn from this first part of the table therefore is that the reduction of subsidy to fertilisers by raising its price will reduce production and should be replaced by a programme that
a) reduces duties on components, b) raises debt equity ratio, c) lowers interest rates and d) reduces feed stock prices. Columns 4-9 in the table shows that except for two years 1982-83 and 1983-84, for every other year, fertiliser availability was in excess of demand. This was because consumption rates were not monitored, nor retail sales, so that the demand forecasts were unreliable, leading to excessive stocks. The total stock at the end of 1987-88 will be a burdensome 3.4 million tonnes, about equalling the 3.5 million tonnes as at April 1987, which is over one third the annual consumption. With increasing domestic production and stagnating demand declining further to 8 million tonnes because of the drought this year, imports should have been cut. Demand projections for 1989-90 is

TABLE XXIX

Item	1970-71 to 1975-76 Pre-subsidy	1975-76 to 1985-86 Post subsidy	Year	Consumption (lakh tonnes)	% Increase	Production (lakh tonnes)	Imports (lakh tonnes)	Total Availability (lakh tonnes)
	(Per cent)							
1. Installed capacity (000 tonnes)			1979-80	52.6	2.7	29.8	20.0	49.8
			1980-81	55.2	4.9	30.5	27.6	58.1
N	10	11.8	1981-82	60.6	9.9	40.9	20.4	61.3
P_2O_5	9	11.5	1982-83	63.9	5.3	44.0	11.3	55.3
			1983-84	77.1	20.7	45.3	13.6	58.9
2. Consumption			1984-85	82.1	6.5	51.8	36.2	88.0
(000 tonnes)	7	11	1985-86	87.4	6.4	57.6	34.0	91.6
P_2O_5	11	16.8	1986-87	87.8	0.5	70.7	25.0	95.7
3. Average consumption of nutrient per hectare	4.5	11.7	1987-88	90.0	2.5	-	-	-
4. Average yield per hectare								
paddy	2	2.1						
wheat	1.5	3.4						

Source: Agricultural Situation, Annual Reports of Ministry & CSO

is 12 million tonnes, which will increase the subsidy of Rs.1200 crores for domestic production and Rs.300 crores for imports, and which will further rise to Rs.4000 crores as fertiliser subsidy in 1990. This is the case for cutting fertiliser subsidy and letting the well to do farmers, who are its main consumers, pay a higher price, while at the same time improving our forecasting and monitoring machinery which will reduce our fertiliser inventory. Turning to chemicals, its rapid development is seen in its use in food and beverages which was Rs.367 crores in 1970-71 increasing to Rs.1980 crores in 1985-86, in textile from Rs.579 crores to Rs.2800 crores in that period, in paper and pulp from Rs.180 crores to Rs.820 crores, in engineering industries from Rs.114 crores to Rs.9990 crores and in chemicals, rubber, petroleum and plastic industries from Rs.496 crores to Rs.820 crores. The case of plastics is a pointer to the future of both chemicals and plastics. Plastics today is 0.66 kg per capita compared to 58-59 kg per capita in industrialised countries. By 2000 there will be a serious imbalance of demand-supply in India, with demand estimated at 2.5 million tonnes and supply at 1.4 million tonnes. The demand estimate is based on a) the use of plastics for lining irrigation canals and for pumps, b) the use in consumer durables and non durables like buckets, telephones and TV, c) the use for packing and d) for telecom. This demand expansion will take place despite the domestic prices being 150-250 per cent higher, and to correct this imbalance there is need for an investment of Rs.4210 crores by 2000 to expand capacity by 1.05 million tonnes. The problems faced by the chemicals industry for the protection of the environment; the need for fresh investment and capacity creation for petro chemicals and fertilisers which include design and engineering services; to meet the above needs through strengthening and upgrading standards and capabilities, and development of optimum size of plants;

meeting financial issues relating to increasing costs due to increasing size and inflation, and additional funds including foreign funds, and a marketing strategy to market increasing production. In the chemicals area, the public sector has had to enter some essential production lines that the private sector has been reluctant to work in. A case in point is IPCL, established to execute the aromatics and Olefins project in Baroda, later entering the downstream production activities of LDPE, PVC, LAB etc. This has required technology import which has, however, been assimilated, but which will continue to be imported in the future, to the extent that its R & D centre is not able to develop them. In the field of industrial alchohol, due to the closing of important consuming centres in UP, West Bengal and Maharashtra and the partial prohibition policy of Tamil Nadu, three states - UP, Maharashtra and Tamil Nadu have emerged as surplus states, though the country as a whole is not in surplus, with the demand from some states for the import of duty free alcohol. The Union government has rightly banned both the export and import of alcohol to ensure use of the domestic product.

<u>Pharmaceuticals</u> The pharmaceuticals scene in 1986-87 was dominated by issues connected with the new drug policy which 1) allows market price greater play, 2) permits a higher Maximum Allowance Post Manufacturing Expenses (MAPE) of 75-100 per cent, 3) limited price controlled drugs to 28, withdrawing the system of licensing, 4) places in category I 27 drugs as essential to the National Health Programme which are allowed 75 per cent MAPE and in category II 139 drugs which are allowed 100 per cent MAPE, with no price control over the remaining drugs and 5) two drugs, pencillin and polio vaccine, taken off the public sector list. This policy formulation was followed by a

facade of consultation by the committee set upto decide on the category II drugs, as the consultation was with drug multinationals and not with the medical profession or consumer associations, who are active in this area. As for category I drugs, they do not include 3 which are essential national health programme elements, namely immunisation vaccine, drugs for maternal and child health programme and oral rehydration salts. The new policy gives in to the demands of the drug industry and ignores the demands of consumers and drug specialists, accepts the industry's contention that the 1978 drug policy stopped the expansion of the industry, approves the vast array of unnecessary and some harmful formulations instead of WHO's list of 200 essential drugs, limits price controls to drugs used in the National Health Programme, increases the MAPE mark up from 40 and 55 per cent to 75 and 100 per cent for the 2 categories, given up the half hearted experiment to use generic and not brand names and ensures that delicensing will apply to non FERA firms. The new drug policy by allowing the higher MAPE mark up has increased the profits of the drug companies, seen in their share value rising by 31 per cent between December 1985 and December 1986, when the general share index fell from 231 to 225: the other profit raising element is that the policy, having no price control, encourages the production of profit producing drugs rather than those needed and essential. The new policy faces the problem of selecting drugs for category I which are essential drugs subject to price control. The Kelkar committee had submitted a list of 160 bulk drugs essential and left it to the government to divide it into category I and II. A committee headed by the BICP chairman finalised the category II list. On category I, there is a controversy between the Ministry of Chemicals which wants to list a limited number of drugs and the Ministry of Health insists on the inclusion of 180 drugs, which is based on

the WHO list as adapted to health situation in the country. For the moment category I and II have been filled as noted earlier; but still to be decided questions are: the surcharge on pain balms, cough syrups etc. to help subsidies leprosy and TB drugs, prescription audit, the establishment of regional/state laboratories to check the 20 per cent sub standard drugs, the prices of category I and II drugs and the norms for minimum costs, conversion costs etc. -- prolonging the time it has taken to formulate and implement the policy. The Supreme Court on the appeal of the government in April decided against the stay order of the High Court against the 1979 Drug Control Order and as a result 26 companies have to pay the government Rs.50 crores, which is the difference between the government fixed prices and what they charged the consumers, but the government seems in no hurry to collect these dues. Again on the appeal of the Consumers Association, the Supreme Court has ordered a public enquiry into whether EP drugs should be banned, because the ban order of the government has again been stayed by the High Courts, and the drug companies have been continuously producing these harmful drugs in large quantities. The companies are opposed to the public enquiry. This question of harmful drugs and standards is important because the 16th session of the Estimates Committee of Parliament reports that between 1979 and 1981, 857 manufacturers including 29 large units produced sub standard drugs and in 1980-81 23 MNCs produced 135 sub standard drugs. Only 5 states have adequate drug testing facility, and when the government moves to correct this situation by insisting that every drug company should have quality control laboratories, it creates chaos. Most of the 8000 units manufacturing the 66,000 formulations are small scale units which cannot afford such testing facilities for the 5-6 days in a month when they have something to test. The order could wipe out small companies.

Hence the Kelkar Committee's recommendation of the Union setting up 4 regional laboratories, which could later be statewise, is sound.

Electronics Electronics, as the Economic Survey 1986-87 points out, which is the base for technological upgradation, particularly in power, coal, oil, railways and process industries, has now had nearly two years of the liberalised policy referred to in last year's mid year review, as comprising broad banding, delicensing of consumer durables and electronic components, freedom to import technology and enter into foreign collaboration agreements; no product restriction on firms with less than 40 per cent foreign equity; no restriction of location, dereservation of some components reserved for the small scale sector, entry of the private sector into the telecom area, no MRTP clearance needed except for consumer electronics and reduction of import duty on raw materials, components and capital equipment. The result of this policy can now be assessed. It has i) increased production of electronic goods from Rs.670 crores in 1979-80 to Rs.2090 crores in 1984-85, Rs.2880 crores in 1985-86 and Rs.3685 crores in 1986-87, b) through investments being determined by market forces, made consumer electronics the fastest growing sector at Rs.1200 crores in 1985-86 against the target of Rs.676 crores, while communications electronics lags at Rs.635 crores against the target of Rs.830 crores, c) kept the value of production of electronics components, which is vital for the growth of the electronics industry, low as component imports at low customs rates makes them 20 per cent cheaper than the Indian equivalent. For instance, colour television sets have 80 per cent imported content and promotes screw driver technology and kit culture. Under the guise of upgradation of technology,

large scale imports from South Korea and Taiwan of completely knocked down kits and even fully assembles sub systems are being used, for so called indigenous manufacture in various areas of electronics, and especially in computers. Thus electronics manufacturers are becoming assemblers, and this kit culture is making India an electronics colony of South Korea and Taiwan. In addition to these questionable effects of the new electronics policy of the fast growth of consumer electronics as against industrial electronics and the kit culture, in December 1986 the government issued a policy on computer software development to attain in the Seventh Plan a target of $300 million compared to the current $30 million. The policy comprises a) an import policy that will promote software development and export, involving use of 30 per cent of excess software export earnings for imports, b) uniform fiscal protection of 60 per cent ad valorem, c) foreign collaboration and investment permitted for FERA firms in this area, and d) expansion of R & D. This new policy's liberalised hardware and software imports provided customs relaxation and export incentives such as bringing them under OGL and cheap Export Import Bank loans; this would result, it is expected, in Indian software, which is about a tenth of the US software cost, increasing software development in the country and boosting exports. Even so the target of Rs.1800 crores of software exports by 1995 against the current Rs.50 crores seems over optimistic. The software computer policy does not address itself to the emerging problems of the computer revolution, to the emerging software system, to the chips, to micro processes, and may be a reflection of the lack of coherent electronics policy of the government which does not see that the simultaneous import liberalisation and easing of capacity restraints are contradictory, nor in the dangers of the spectacular growth in consumer electronics

as against the worrisome lag in the production of components. Also should not a start be made in providing incentives to indigenous R & D? On both these issues, the Electronics Commission seems to be moving, as in its communication to the Minister of Industry in mid September, it proposes shifting from emphasis on investment oriented industrial policy to indigenous R & D based processes and systems equally important, it has proposed banning the import of components when there is adequate indigenous capacity to manufacture them.

Paper and Newsprint In the paper field, the debate in regard to large versus small mills intensified in 1986-87. Of the 285 units with a capacity of 27.36 lakh tonnes in 1985-86, 230 are small units set up with the help of second hand machinery. About a quarter have been closed for 2 years and the IDEI survey of the units indicate their problems: poor use of capacity due to equipment bottlenecks, high cost of coal, power shortage, raw material shortage and falling prices as paper supply exceeds demand. Should the lower excise on their output be lifted? A recent study of some 28 paper mills[45] concludes that small mills have a higher production cost because they do not enjoy the economies of scale of the large mills. This of course is true of all industries which are capital intensive and the paper industry is capital demanding. On the other side, the small mills have increased the supply of paper and paper board, they have conserved forest resources by using non conventional raw materials, they provide employment to 2 lakhs workers. On the insistence of the large mills, to whom the Paper Control Order introduced in 1974 applied in order to meet the wide demand-supply gap and the need of education for concessional paper, the Order was withdrawn in January 1987. Now that there is adequate supply of paper, infact

an excess of supply over demand, and the supply of white printing paper for text books can be subsidised, there is no reason to continue the Control Order. It is to be hoped that this will lead to increase in capacity use which has declined from 84 per cent in 1979-80 to 64 per cent in 1986-87 and to the internal generation of resources to serve as the base of modernisation. The newsprint industry has a capacity of 2.80 lakh tonnes and produced 2.70 lakh tonnes in 1985-86. The dependence on imports in the newsprint area is a long term feature of this segment, though the tendency towards reduction of imports from 2.40 lakh tonnes in 1984-85 to 1.96 lakh tonnes in 1985-86 should continue. This is possible if the 16 letters of intent with the annual capacity of 4.6 lakh tonnes are turned into industrial licenses even to the extent of 40 to 50 per cent. The other reason for a declining trend in imports is the satisfactory capacity utilisation of this segment at over 90 per cent, and which is far superior to that of the paper industry.

Edible oils The problems of the edible oils industry have been somewhat exhaustively discussed in the last two mid year reviews, and there is little to add to that analyses, except to refer to the government's decision to restrict the import of edible oil to 10 per cent of the country's total edible oil requirements from December 1, 1986, which was however abandoned in February 1987 and increased to 30 per cent, further to 40 per cent in March, and even more later, at a time when the harvest of rape seed/mustard seed was estimated at 12 lakh tonnes and all oil seeds at 130 lakh tonnes. There is a short term and long term reason for this change of a carefully considered decision in which the Minister of Finance, Minister of Agriculture and Minister of Civil Supplies were all in complete agreement and which led all three of them to speak somewhat

unrealistically of the country becoming self sufficient in oil seeds in the Seventh Plan. The short term reason for the change, which goes back to August 1986 was because oil prices rose (groundnut oil by 20.6 per cent over a year, kurdi oil by 18.7 per cent, edible rice bran oil by 18 per cent, cotton seed oil by 16.5 per cent) - all due to the 5-6 lakh tonnes shortfall of the 1984-85 oil seeds supply and not because of the 1985-86 crop which was in fact larger. In view of the price rise, the government panicked and revised its decision to restrict edible oil imports to 10 lakh tonnes and went in instead for the import of 13 lakh tonnes. There was a repetition of this panicky reaction in February 1987. The long term reason is more serious and that is that there is no long term edible oils policy for the country. Instead ad hoc decisions are made, involving for instance 1) decontrol of vanaspathi in January 1987 and reimposition of controls in April. The government reduced allocation of imported edible oil to the vanaspathi industry from 80 per cent to 30 per cent and freed it from all controls over prices, packaging, oil mix and distribution in January, but restored supply of 1.95 lakh tonns of edible oil to the vanaspathi industry at Rs.6000 to Rs.8000 per tonne below the market price. Instead of lowering edible oil prices, this ad hoc subsidy to the vanaspathy industry, raised prices by 25 to 50 per cent in July/August 1987. It has never been explained why this huge financial benefit is made to the vanaspathi industry in the form of allotment to it of imported oils at half the price of indigenous oils, at Rs.11,500 a tonne. Apart from the fact that the latter which constitute over three fourths of edible oil consumption in the country does not enjoy such benefits, the consumer will gain if the government stopped the supply of imported oils to the vanaspathi industry which will

then not be able to take away indigenous oils and raise their prices. 2) This last is a second example of adhocism -- that of promoting use of minor and non traditional oils through excise rebate and at the same time supplying massive quantities of imported oils at concessional prices to the vanaspathi industry. 3) A further example of the ad hoc policy is the decision to increase to 60 per cent the use of rape/mustard seed oil in vanaspathi, and banning its use after a few months. In fact there seems to be confusion in this area as seen in i) the reduction to 35 per cent in the customs duty on machinery for solvent extractions industry, ii) replacing the 10 per cent ad valorem excise by the levy of Rs.1950 per tonne for vanaspathi, iii) the rebate of Rs.6500 tonne of rice bran, Mahua, water melon seed oil used in vanaspathi, iv) replacing the rebate for use of expeller cotton seed oil by rebate of Rs.3250 a tonne for use of cotton seed oil, rape/mustard oils in vanaspathi, v) modifying the existing rebate for the use of minor oils in soap. This increased use of minor oils is welcome, but the above fiscal strategy will make a limited contribution to increased oil supply. The purpose of the excise rebates is for vanaspathi and soap manufacturers to pay higher prices to minor oil growers in order to increase their supply. But this has not happened because the excise rebate has not been passed on. 4) Finally the adhocism is glaringly seen in the quantum of edible oils imports not being related to oil seeds production -- in 1982-83 there were 100 lakh tonnes of oil seeds produced and 11.50 lakh tonnes of edible oils imported, in 1983-84 a larger 126.9 lakh tonnes were produced and a higher 16.34 lakh tonnes of edible oil imported, in 1984-85 they were 129.5 lakh tonnes and 13.6 lakh tonnes, in 1985-86 they were 111.5 lakh tonnes and 12.80 lakh tonnes and in 1986-87 they were 121 lakh tonnes

production and 14 lakh tonnes respectively. A long term edible oils policy must comprise: a) elimination of imports in order to expand oil seeds production; b) stop supply of imported oil to vanaspathi industry which in return should be given freedom from all controls like the rest of indigenous oils; c) given the fact that vegetable oil refineries' capacity is 20 lakh tonnes, of which only 20 per cent is in use, and the solvent industry's capacity is 10 lakh tonnes of which only 40 per cent is used, till oil seeds production reaches an adequate level, oil seeds should be imported and made available to our solvent industry and refineries. This applies particularly to the soya bean oil area where the processing capacity is today 36 lakh tonnes, while indigenous soya bean production is only 9.8 lakh tonnes, resulting in a 30 per cent capacity use, when to break even there should be a minimum 60 per cent utilisation. Hence like UK, Japan, France etc we should import soya bean and other oil seeds to meet the edible oil gap in the country -- which will also enable each segment to be helped with its problem -- the rice bran industry with the modernisation of its outdated milling machines, cotton oil seeds industry with its low price due to the domestic customers' ignorance and exports being limited due to low CCS, groundnut extraction with the aflatosin problem on which R & D is needed, and soya bean industry with its low capacity use, as noted earlier. Here on all this, the agricultural ministry has resisted import of oil seeds to protect the interest of oil seed growers "and because soya bean has a small (17 per cent) oil content". The experience of other countries on this matter has been quoted above which also face these 2 problems but only import oil seeds and never edible oils. That should be our long term policy.

Sugar The major event in the 1986-87 sugar year was the announcement of the 3 year sugar policy, which has helped in increasing sugar production to near 85 lakh tonnes, (as at August 31 it was 84.57 lakh tonnes), the highest attained since 1980-81. The main elements of the policy are: a) increase in the share of free sale sugar which was 35 per cent in 1979-80, 45 per cent in 1985-86, onto 50 per cent from 1986-87; b) the statutory minimum cane price which was Rs.16.5 per quintal for 1987-88. This advanced notification of the minimum price as well as its increase has been one of the main elements accounting for the increased production of sugar cane. This statutory price is not the price paid to the cane grower, as that is decided by each state, but the higher statutory price also leads to higher states advised prices. This question of varying states prices for cane needs attention, as the prices are fixed after a deal of negotiations and some horse trading, and not basically on considerations of costs and returns. Whether the alternative is an all India price as is the case with foodgrains or zonal prices reflecting the different conditions in each region, needs review and decision. The statutory price is now used only as the base for fixing the levy price; c) the price of levy sugar has been increased from Rs.4.80 a kg to Rs.4.85 and so too has the price of open market sugar - both aimed at increasing production and lessening the diversion of cane to gur and kandasari production. Open market sugar prices are kept high by keeping the offtake lower than the release. Thus in 1984-85 85.4 lakh tonnes were released but the offtake was kept down to 80.6 lakh tonnes, in 1985-86 the release was 88.2 lakh tonnes and offtake 83.2 lakh tonnes. If the price policy has as its objective to increase cane production, these small variations in the statutory prices the state advised price, the levy and open market price are minisculo

compared to the effect on cane production and above all its destination, whether to the sugar mills or gur/khandasari producers, of the price of molasses. The sugar mills are required to sell their molasses at Rs.6 per quintal, whereas the gur/khandasari producers who do not have any price control are able to sell their molasses at Rs.180 per quintal and so can pay a much higher price to the cane grower. This anamoly should be corrected by freeing molasses from any price control that will give the mills the cane they need. This is especially important, as in 1987-88 and the remaining years of the Seventh Plan, the government intends to permit a sizeable increase in the number of sugar mills - both co-operative and private - to meet the Seventh Plan target of 102 lakh tonnes of sugar production. Where is the cane to come from for this increase in the number of working mills? A further issue concerns imports. The increasing releases referred to above were not due to increased domestic production but to increased imports, at 11.8 lakh tonnes in 1984-85, 16.2 lakh tonnes in 1985-86 and for some unexplicable reason 9 lakh tonnes even in 1986-87, a year of peak production. India was a traditional sugar exporting country and is so listed by ISO. The decline in sugar production in the 80s has turned the situation around and made imports a part of the sugar scene. This is unnecessary and should be stopped, together with some restraints on the rapid growth in the rate of consumption. The major problem faced by the industry is modernisation, particularly of the obsolete mills in UP and Bihar. This is the policy does not deal with.

Leather The leather industry presents both an encouraging profile as well as raises a basic somewhat disturbing issue. On the one hand exports of leather goods are rapidly expanding from Rs.584 crores in 1984-85

to Rs.662.51 crores in 1985-86, Rs.930.77 crores in 1986-87 on to the 1987-88 target of Rs.1100 crores. In this expansion, an encouraging factor is the high share of value added leather goods from 38.8 per cent of exports in 1984-85 to 49 per cent in 1985-86 and 60 per cent in 1986-87. To deal with this increasing demand, leather policy is i) encouraging MRTP and FERA companies to enter the field provided their factories are located in backward areas and 75 per cent of their product is exported. A number of a large houses, Larsen & Toubro, Wipco, Ponds and Tata Exports from India, Adidas and Gabor from West Germany, Florsheim, Friedman and Drayton from US etc., have entered this area. There is the problem of protecting the interests of the small tanning units which will arise in the coming years; ii) the import duty free hides and skins to supplement the local supply has helped expand finished goods production; iii) the liberalised imports of capital goods, components, and such items as canvas, cotton and flannel which are helping this expansion. Even so India's share of the world value added leather exports is only 1.4 per cent and in shoes and components only 1 per cent. Hence efforts are being made to increase the production of leather garments demanded by Western Europe and the US, the market for which is dominated by South Korea, Turkey and Uruguay, and of footwear and uppers for USSR and Eastern Europe, the market for which is dominated by Brazil, Spain, Portugal and Italy. The basic worrisome issue is that this increase in Indian leather goods production and leather goods exports is for the main part due to most of Europe - UK, France, West Germany, Netherlands -, and the US closing down their leather industries to avoid the serious pollution which the tannery effluents caused. India in taking on increasing pollution prospects. And these prospects are grim because, unlike

South Korea or Brazil, there are no anti-pollution measures, or recycling of tannery effluents in the country. This needs urgent attention.

Caustic Soda and Soda Ash Both these rather small but essential industries, soda ash and caustic soda, face similar problems in 1986-87 and into the future. Their capacity use was over 90 per cent in the case of soda ash and around 70 per cent in caustic soda. Both are capital intensive and power intensive, and with the power shortage facing them, the start of the power saving membrane cell technology can introduce a new dimension in the future. While capacity of 10.92 lakh tonnes in the case of caustic soda is adequate for the Seventh Plan, atleast half of the LIs with a capacity of 10.09 lakh tonnes issued by the government should be turned into ILs and go into production by the end of the Seventh Plan, to meet the fast growing demand for the product. There are two further problems related to each of these industries. In the case of caustic soda, the firms have had to face dumpiug of the product from the giant Saudi Arabia plant, which has no market for caustic soda within the country. The need of the plant to find an outlet at all cost was such that even high customs tariff did not stop the dumping, so that it had to be taken off OGL and imports regulated through STC canalisation. In the case of soda ash, the supply-demand balance is so finely tuned, that it is important for the government and planning commission projection of demand to be accurate and as near the actual demand as possible. The demand estimate is 14.90 lakh tonnes and production 12.78 lakh tonnes in 1990-91. The limited number of manufactuerers are producing to near full capacity, so that a mishap to one of them can cause serious damage to the user industries. The

maintaining of buffer to meet this situation would be a costly solution. The production of the new units coming up will result in a surplus which will avoid this contingency and open the way to exports.

Cement There is general agreement that the partial decontrol introduced in the cement industry in February 1982 along with the high demand from the fifties resulted in a) capacity expansion from 28 million tonnes in 1981-82 to 46 million tonnes in 1985-86; b) increase in production from 21 million tonnes to 33 million tonnes in that period; c) high profits to the industry which led to its modernisation and expansion. In this regard an urgent problem is for the 12.5 million tonnes still using the old wet process to be modernised at a cost of Rs.1250 crores, which will also save the use by the industry of 2 million tonnes of coal per day, which at current prices works out Rs.100 crores a year. The IDBIs soft loan scheme can be used for this modernisation programme. From 1984-85, cement prices began falling and costs rising which according to the Cement Manufacturers' Association (CMA) has resulted in reduced profitability, at 33.9 per cent in 1982-83, 23.4 per cent in 1983-84, and 8.9 per cent in 1984-85 and 4 per cent in 1986-87. CMA also reports that gross profit per tonne has declined from Rs.120 crores in 1982-83 to Rs.40 in 1985-86. To improve the profitability of the industry, the government in December 1986 reduced the levy obligation of all units by 10 per cent and of new units by 15 per cent. Levy prices were raised by Rs.24.50 per tonne and the obligation to contribute Rs.9 a tonne on the sale of non levy cement to the Cement Regulation Account was abolished. CMA wants all controls to be lifted and till that is done for the levy price to be raised. The government, on the advise of the Planning Commission, is seriously considering

total decontrol of the industry. CMA also expresses disappointment with the reliefs granted by the 1987-88 budget both in the matter of excise relief, and the reduction of the proportions of levy cement. The budget relief is for new units, started after 1 April 1986, in the way of Rs.50 per tonne as excise rebate. CMA points out that the relief will cover the industry capacity of 8 million tonnes out of a total 50 million tonnes. The levy obligation has been graded as follows: i) for units in production on February 1, 1982, 50 per cent levy; ii) for new units or expansions after 1 January 1982, 30 per cent levy; iii) for substantial expansion after 1 April 1986, 30 per cent levy; iv) for sick units 30 per cent levy and v) for new units starting 1 April 1986, 15 per cent levy. The industry wants the excise rebate extended to units which went into production between 1 January 1982 and 31 March 1986, and which account for 14 million tonnes capacity, to enable them meet their interest charges and depreciation costs. Overall reliefs were granted only some months ago in December 1986, as noted above, and the case for further reliefs is not clear. There is need for attention to the 45 mini cement units now in production and 8 under construction, and for a BICP study of their cost structure and return on investment on the basis of which remedial measures can be taken.

Polysilicon and LCD The events related to polysilicon production and the liquid crystal display project in 1986-87 and 1987-88 raise grave questions of not only scientific competence of government departments but also their commitment to the goal of technological self reliance. On the Polysilicon project, 1986-87 saw a continuing battle between the Department of Electronics and other scientists, particularly those in the Department of non conventional

energy sources (DNES) over the scientific soundness and technological viability of the polysilicon developed by METKEM at Mettur by Indian scientists at IIS, Bangalore and at Mettur. In 1986, the joint evaluation committee composed of scientists from DST, DOE and DNES assessed the project and reported on its technological soundness and its scope which would meet national needs during the Seventh and Eighth Plans. The Department of Electronics rejected the report and wanted to go ahead with the US firm, Hemlock, with which a contract had been signed and which was prepared to establish a silicon estate near Baroda. The issue had to be referred to the Prime Minister, and it was not till a new Secretary in DOE was appointed that the Hemlock contract was terminated and METKEM given its head. The Department of Electronics has asked its council for the development of materials for electronics to evaluate the work on polysilicon. NCL has set up a 1 tonne plant to produce polysilicon. METKEM's plant is 2 tonnes. Other CSIR laboratories are also engaged in this research. Meanwhile the Department is holding a Rs.9 crore design for polysilicon technology, which it had to buy from Hemlock, when terminating its contract. This is one of the matters that the committee should look into, as well as the reported sickness of METKEM. Similarly there is the case of the indigenous development of liquid crystal technology, used in display technology - by BEL, Bangalore and the Raman Research Institute. This technology was, however, turned upside down by the government allowing free import of LCD devices, which has forced BEL-RRI to reduce their production and prices in favour of Japan and other LCD producing countries. Here is a case of a good R & D project being made unviable by the government.

Infrastructure

Power The power industry presents short term and long term problems. In the short run, the 1986-87 power generation growth rate was 10.3 per cent, which is short of Seventh Plan target of 12.1 per cent. Thermal generation which accounts for two thirds of total generation, recorded a growth rate for the year of 12.5 per cent, with an all India Plant Load Factor (PLF) of 53.2 per cent (Union sector 76.3 per cent, private sector 62.0 per cent, 7 State Electricity Boards (SEBs) 69.7 to 53.8 per cent and 8 SEBs from 50.7 to 31.7 per cent). It should be noted that the government stated in the 1987 budget session of parliament that a 5 per cent increase in PLF will reduce the power deficit by 4 per cent,[46] the power deficit being 9.4 per cent, mainly in Karnataka, Bihar, Orissa, UP, Haryana and Jammu & Kashmir. Hydel generation rose by 5.5 per cent which was short of the target by 5.7 per cent, due to inadequate rains in the South, West and North East. While small hydel project potential of the country is 5000 MW, only 175 MW had been developed by 1986-87. The all India transmission and distribution (T&D) loss is 22 per cent, with Jammu & Kashmir at 36 per cent, Rajasthan 27 per cent, Gujarat 26 per cent, Kerala 25 per cent and Karnataka, West Bengal, Orissa and Bihar 23 per cent each. It may be recalled that the Advisory Board on Energy has said that 1 per cent reduction in T&D losses is equivalent to capacity addition of 300 MW and investment of Rs.90 crores per annum.[47] By 1986-87 2622 MW of new generating capacity was added against the target of 3382 MW, and actual generation was 187.6 billion units (bu) against the target of 190 bu. For 1987-88, the current year, 3682 MW of thermal and 1234 MW of hydel is targeted, but with the drought, in the first quarter, April-June 1987, thermal generation is 11.2 per cent more than that of the first quarter of 1986, and hydel generation

a mere 0.1 per cent. Serious shortfalls and heavy cuts and load/shedding are being experienced in Delhi, Haryana, Rajasthan, UP, Kerala, Karnataka and Tamil Nadu. Among long term issues, the question of nuclear energy which is currently less than 2 per cent of the total power generation but is planned to be increased to 10,000 MW by 2000 AD needs wide ranging analysis and debate among scientists and specialists on the accident proneness of nuclear plants; the radiation risk which is kept under cover as in the case of workers at Tarapore receiving 2000 millions of radiation but recorded as 500 or the high radiation suffered by the families of workers in the Rare Earth project; the problems of waste disposal as in the case of the RAPP plant which has to be scrapped but on which DAE has no plans; the technical inefficiency of the plants, Tarapore with 220 MW performing at 110 MW, MAP at 40 per cent etc; the high cost of nuclear power because the price of reactors are rising at twice the capital cost of coal plants (at 14 per cent per annum), with their sophisticated safety devices compared to the emission control of thermal plants; and above all the very thin margin that separates nuclear power and nuclear weapons. There is a view, which I share, that we are playing around with nuclear energy, because all our energy needs will not be met by coal and oil if industry is to develop at 8-10 per cent per year over the next 25 years. This is true and so the alternative is to consider seriously the trade off between some part of our development against a ban on nuclear energy and its use. A second issue relates to the finite nature of our energy resources which need to be taken into account in our long term development planning. In million tonnes of coal replacement (MTCR), electricity use has been growing at an annual average of 4.8 per cent and in 1986-87 is

62 MTCR, coal at 5.1 per cent and 166 MTCR, petroleum products at 5.6 per cent and 299 MTCR and National gas at 11.8 per cent and 42.32 MTCR, which results in an energy intensity of 1.5 which is too high for a 3.5 per cent trend growth of GNP, and which will exhaust our non renewable energy sources, unless we adopt conservation measures and give up some Development. On the renewable sources, which will be reviewed later, in regard to fuel wood, the fuel wood committee estimates availability at 50 million tonnes which will not meet half the cooking requirements of the country, agricultural wastes at 41 million tonnes which is a very small resource, dung at 73 million tonnes burnt as energy, and biogas and bio mass now rapidly increasing and which have little limits, solar energy where the problem is the cost of the technology, and wind and geo thermal energy which are still in search of a cost effective technology. The future energy scene calls for restraint and careful husbanding of the resources. One other long term problem is that relating to the energy needs of 80 per cent of our people who are the rural peoples and the urban poor, who together make up 624 millions out of the population of 780 million in 1986-87. The only energy available to them is in traditional sources wrongly termed non commercial, (wrong because they involve costs in their gathering and use) - namely wood, wastes, dung, while all non renewable sources of energy, called modern forms of energy - electricity, coal, petroleum products, and gas are reserved for the minority 20 per cent of the population who use 54 per cent of the 544.3 million tonnes of coal replacement which is the non renewable sources. The energy crisis is the crisis of the 80 per cent poor. The 20 per cent non poor, who include the pumpset owners which is what REC means, face no crisis: they face shortages, inefficient supply, and poor production

and distribution net works. This means that the problem of power is the problem faced by the 80 per cent of people, the poor, to which little or no attention is being given so far - not even in the so called minimum needs programme. We are concentrating all our attention, as this note does, on the targets for electricity generation, coal and petroleum production and their shortfalls, which is not the power problem.

Coal In the coal area there are several problems. The first is regarding the authenticity of the published data of the Department of coal. It states that in 1986-87 coal production was 165.90 million tonnes, coal despatches were 162.90 million tonnes and pit head stocks were 32 million tonnes. On this two points may be noted. One is that all industrial consumers in the coal and non coal sector - thermal plants, paper, textiles, heavy chemicals, small scale units etc. complain of inadequate supplies. CIL reports that it is putting into effect a new delivery system of establishing coal dumps in a number of locations which should ensure steady supply atleast to small consumers. The other issue is that coal production figures, profits, accounts etc. are falsely reported and for this the management and finance officers were punished. The second problem relates to the question of price versus productivity increase. The annual report of the ministry for 1986-87 makes a case for a price rise.[48] It states that in 1986-87 the average cost of production was Rs.219.77 per tonne, while the price was Rs.210 per tonne, and for the current year it forecasts that costs will go up to Rs.225.12 per tonne and unless the price is raised, the coal industry's losses will increase beyond the Rs.264 crores in 1986-87. Incidentally coal prices have been increased by 500 per cent in 10 years, and 5 times during the Sixth Plan and twice since the start of the

Seventh Plan. CIL also reports a continuous annual increase in production costs from 1980-81 to 2.7 per cent for the current year. The question is whether the increased costs should be covered by increased price or by increased productivity. The output per man shift (OMS) in 1986-87 was 0.91 tonnes which was the same for 1985-86, and the annual report expects that it will attain 0.93 tonnes, which is well below the Seventh Plan target of 1.21 tonnes. The Annual report does not seem able to make up its mind on what the OMS is for 1986-87. In p3 it speaks of 0.93 tonnes and in p34 0.94. What is even more distressing is that the OMS in open cast mining was 2.20 tonnes in 1985-86 and has declined to 2.19 tonnes in 1986-87, despite open cast mining being easier. The means of meeting the increasing cost is not to raise prices but improve productivity - bringing OMS nearer the Plan target. Third, there is the problem of coking coal having a higher ash content, which has led SAIL to reject the supply. As a consequence, it has been permitted to import 3.3 million tonnes of coking coal for 1986-87, though the whole of the Seventh Plan provision is for import of 3 million tonnes only. Because of the increasing share of open cast mining (in 1950-51 it was 13.7 per cent of total output, in 1986-87 it is 55.3 per cent), the quality of coal is deteriorating, with high ash content, over size and extraneous matter so that coal handling plants have had to be installed in the mines. As of now 67 per cent of mines are so equipped and by the end of the Plan all mines will be, sending up further the cost of coal.

Crude production in the country seems to be stagnant at around 30 million tonnes - in 1985-86 at 30.17 million tonnes, in 1986-87 at 30.46 million tonnes and a target of 30.46 million tonnes for the current year 1987-88. There are several consequences of this. One is to increase imports to meet the 4 per cent annual increasing demand for crude and petroleum products. For 1987-88 crude imports will be 17.34 million tonnes and petroleum products 3.77 million tonnes compared to 15.14 million tonnes and 1.90 million tonnes in 1985-86 and 15.60 million tonnes and 2 million tonnes in 1986-87. This also means that Bombay offshore output is levelling off, and the exploring of new wells including the blocks allotted to foreign companies is slowing down. Second, this gives urgency to the work of the Petroleum Conservation Research Association which has recommended a) fuel oil utilisation studies, b) boiler modernisation programmes, c) low air pressure burners and kerosene stoves, d) training drivers in optimum use of HSD and e) rectification of irrigation pumps to reduce HSD consumption. These recommendation should be acted upon. Third, there is need to take our abundant gas reserves seriously and stop their wasteful flaring. In 1986-87 gas was 5029 million cubic feet but its use was less than 70 per cent. The Rs1700 crores HBJ Hazira-Bijaipur - Jagdishpur HBJ pipe line is to supply gas to 6 fertiliser plants and 3 power plants. Its execution in view of the current urgencies is tardy. Fourth, there are some lessons to be learned from the fact that 1984-86 fall in crude oil prices did not benefit our balance of payments situation, because we have not learnt to introduce the necessary flexibility in our contracts with foreign crude suppliers, or to have the freedom to switch to the spot market when the price movement so indicates. In entering into future contracts - and crude imports will continue as a on long term feature - some of these lessions should be included in our negotiations. Finally the need to restrain the very high rate of consumption of petroleum products is once more reiterated. The refining capacity at the start of Seventh Plan which was 45.5 million tonnes is to be raised to 52.6 million tonnes by the end of the Seventh Plan and 69.90 million tonnes by the end of the Eighth Plan.

This kind of increase we cannot afford. Today the 3 million tonnes refinery at Mangalore costs Rs900 crores. And here it makes no difference whether the refineries are in the private or public sector. We do not have the resources for this kind of use of our capital. If the rate of consumption now assumed at an annual 6.5 per cent were reduced by 1 per cent, it would make the refineries and petroleum production programme one well within our means.

Railways and Shipping

The railways expanded both its income earning freight at 277.44 million tonnes, against the revised target of 272 million tonnes, and set itself for the current year, 1987-88, the target of 287 million tonnes; and its passengers by 5.4 per cent, setting the 1987-88 target of 3735 million passengers. It also reports that in the first 3 years of the Seventh Plan, 66 per cent of its development expenditure has been spent on track renewals, on replacing outdated rolling stock, and on eledctrification which are the right priorities, but on which more could have been spent if the continuing high ope operating ratio of 93 per cent could have been reduced through improved productivity. The railway budget claim in February 1987 that it was based on no increase in fares and rates does not take account of the fact that just 2 months previously, on December 1, 1986, there were steep hikes in both rates and fares which added Rs320 crores as income in the 4 remaining months of 1986-87 and will be augmenting the 1987-88 revenues by Rs1200 crores. Another innovation is that out of the Plan outlay of Rs. 2680 crores for 1987-88, subsequently raised to Rs2980 crores, Rs300 crores were raised through market borrowing by the new Indian Railways Finance Corporation. It is to be hoped that the computerised RFreight Operations Information system being operated by the Centre for Railway Information system will bring down the administrative operating costs and speed up the programme of electrification, track renewal, replacement of outdated wagons and coaches and completion of lines under construction. With regard to shipping,

first it may be noted that the sharp critical comments of the 28th Estimates Committee of Parliament on the poor functioning of our ports - the more than 3 fold increase in the waiting period for ships, while traffic did not even double, the lack of mechanical cargo handling, inadequate berthing capacity etc, which resulted in port congestion, the under use of some port facilities as in the case of POL at Mangalore and Paradeep and general cargo at Haldia, Cochin etc and their over use as with POL and fertilisers at Madras and Vishakpatnam - has had a salutory effect, though its main recommendation for the Union ministry of transport to acquire legislative authority to divert traffic and redistribute cargo was not acted upon, in that the turn around time of ships has been reduced from 10.5 days to 8 days between April and December 1986; the average preberthing time declined for all ports from 3.5 days to 2 - 3 days; and cargo handling increased in 1986-87 by 3.9 per cent on top of the 12.5 per cent increase in 1985-86 due to improved operational efficiency. In regard to shipping, tonnage increased from 1.9 lakh GRT in 1947 to 6 million GRT in 1986 and stands at 5.8 million GRT in 1987. There are several facts of the Indian shipping scence which demand attention. First inspite of Indian foreign trade increasing from 71.19 million tonnes in 1979-80 to 86.35 million tonnes in 1985-86 (unlike the decline in world trade during the period), the Indian ships cargo carrying has declined from 32.23 million tonnes in 1982-83 to 29.93 million tonnes in 1985-86, which has menat that 40 to 50 per cent of our cargo carrying capacity lies unused. Second, not only is the percentage share of foreign ships carrying Indian cargo increasing from 58.45 per cent in 1982-83 to 63.34 per cent in 1985-86, but they also have a larger share of high value freight cargo, reducing the freight revenue earnings of Indian ships. Third, under the current licensing policy, Indian ships operate only in the Indian trade area and not in the area of lucrative and expanding cross trading. Fourth, 50 per cent of the efficiency

of shipping services depends on the quality of port facilities where, despite the improvements noted earlier, relative to China, Japan and other countries, India's port facilities are poor, and add to the operational and cost constraints of Indian liners. Fifth, the lengthy procedures for placing orders or purchasing and selling ships means paying higher purchase prices and losing bargain offers and a a large part of the tonnage acquired is under bilateral "aid", ships of poor quality and workmanship find their way into Indian shipping. Sixth, once shipping capacity is created, it is there and must be used, calling for a stable cargo base, while the continuous recession in world trade and over tonnage in world shipping has meant a large proportion of Indian trade is taken over by foreign ships, despite the government provision that a firm must ship 50 per cent of its cargo in Indian bottoms and after that must get a license to use foreign ships and also despite the UNCTAD liner code. In this matter, the conflicting views of the Ministry of Transport and Ministry of Commerce and the demand of business firms that their right to choose the liner for carrying their goods, adds to the problem. Finally the new financial agency, the Shipping and Investment Corporation is no improvement on the previous SFDC, in providing finance to acquire new tonnage which now stands at 35 shipping companies owning 5.46 million GRT. As overaged tonnage is scrapped, the new Corporation should make available loans without the 1 per cent increased interest or 0.5 commission and should process the applications quickly, so that the proposals to scrap averaged vessels and acquire new ones, while also going in for diversification is not delayed.

Telecommunications

Is telecommunications part of the country's infrastructure and if so, does it share in the prior claim on resources that all infrastructure involves? For long, telecommunications

was a neglected sector, with little attention given to it, despite the long historical record of the Indian Telephone Industries (ITI) dating back to 1951. Then came the 1983 World Communications Year which was contomparaneous with the exercises that led to the Seventh Plan. And suddenly telecommunications acquired a new dimension a) in being included in the five 'missions' - water, immunisation, telecommunications, oil seeds and education, b) in the proposed government plan to invest Rs50,000 crores in telecommunications by 2000 and c) in the further proposal of 'telephones on demand' by the end of the Seventh Plan. The resources crunch facing the Seventh Plan however has forced a scaling down of these targets and what is worse has given telecommunications the status of an infrastructural sub sector without the funds that it needs. But there is some hope, because of the agreement to increase investments in future plans. A second development has been the setting up of the two autonomous units the Mahanagar Telephone Nigam Ltd. (MTNL) covering the Bombay and Delhi net works and the Videsh Sanchar Nigam Ltd. (VSNL) covering all overseas communications. Telecommunications services are subject to large economies of scale and these two units, because of the density of the demand served, will earn rapid returns on their investment. Per contra, there is a danger that because the two most important revenue earning sectors have been hived off from the country's unified telecommunications system, that other sections, particularly the rural, which will not pay for themselves, will be neglected. This calls for a double action - to use some of the surplus generated by MTNL & VSNL to subsidise telecom development in the rest of the country and second to raise the telecommunications tariff to generate the resources that the sector needs. A third development in Telecommunications is the setting up of the Centre for Development of Telematics (C-DOT) which has obtained a government commitment that the second (certainly the third) electronic switching systems factory will be

based on its technology. It has so far developed a private automatic branch exchange (PBX), a rural automatic exchange (RAX) and a main automatic exchange (MAX). C-DOT's PBX has been commercialised and ITI has set up a pilot plant to develop MAX. The transnationals are hard at work to decry the technology developed by C-DOT, as they did with our Polysilicon and LCD technology. The more discouraging part is that there are sections in the country - the government and in trade circles who act as their lobby. It is therefore necessary to give C-DOT more time (beyond the 3 year deadline) to develop indigenous telecommunications equipment.

Non conventional Energy

Non convention energy sources are gradually becoming part of the infrastructure. By and large it is at the R&D stage, except in relation to Biogas and Biomass. In 1986-87 the new initiatives included establishing a 1MW amorphous silicon pilot plant and the Indian Renewable Energy Development Agency which is working on a 50KW solar power unit and completed the feasibility study on a 30 MW solar thermal power plant. In biogas, as of January 1987 7.3 lakh family size bio gas units have been established to provide families with cooking gas and fertilisers and the post installation and maintenance services to them have been strengthened. In 1986-87 1.9 lakh units were set up and for the current year, the target of 2 lakh units will be passed. The programme of improved chulas has reached 25 lakhs, which is saving 17.5 lakh tonnes of wood. In 1987-88 7 lakh chulas will be installed. In the field of solar thermal energy, the development and installation of solar passive huts and green houses in Ladakh has provided good housing in that overly cold region, as well as fresh vegetables in an aere where vegetable are sparse and scarce. In solar

R&D, portable community size solar cookers suitable for upto 50 persons have been developed and are being increasingly used. For remote areas, rural electrification through solar photovoltaics have been developed in 677 villages. In 1987-88 300 more villages will be so electrified. Biomass conversion through gasification has developed gasifiers of various capacitors manufactured locally and are in use in 35 energy self sufficient villages. The five existing wind farms pumped 40 lakh units of grid quality electricity into their respective grids. Indigenisation and wind mapping projects were also stepped up. The Plan for development of non conventional energy sources upto 2000 envisages generation of energy to the extent of 250 million tonnes of coal replacement per annum. This, as noted in the power section, is a sizeable savings on our traditional and non renewable sources, far in excess of nuclear power perspectives, at 15,000 MW of electric power, along with 1.2 crore biogas plants and 10 crore chulas - which will make this segment an important infrastructural one.

Science and Technology

In the field of Science and Technology, the 1985 RBI fourth Survey on foreign collaboration[49] is important as presenting a time series of patterns and emerging trends, though it had the smallest coverage of the 4 surveys, with 594 companies with 580 agreements over the period 1977-78 to 1980-81. The survey shows: i) an increase in royalty and dividend costs and restrictive clauses in the agreements: ii) the reference to know how import along with patents and trade marks shows the restrictive nature of the technology transfers: iii) foreign investment is regarded as a vehicle for technology transfer along with regulating the terms and conditions of contracts consistent with the objective of self reliance and wider national interests:

iv) technology regulation reduces costs of technology import, while liberalisation increases costs; v) the importance of moving from dependence to independence; vi) the rationale of a policy of liberalisation permitting more freely foreign controlled units, and non FERA fully owned foreign subsidiaries on the ground of access to sophisticated technology is not based on the survey facts; and vii) the innovations and technological capability, which can assimilate, adapt and make its own the imported technology. A second important report on Science and Technology was that of the committee headed by Planning Commission member Abid Hussain and issued in 1986 on the Council of Science and Industrial Research (CSIR). This was the seventh review of the council since it was founded in 1944, since when 14 research agencies have been established with R&D expenditures expanding to Rs.699.37 crores[50] and the inhouse R&D in public and private sector being nearly 3 times that of CSIR. The committee recommended: i) coordination of S&T activities of 150 universities, 14 R&D agencies, 68 public sector and 714 private sector R&D units which are each operating independently as self contained units, and where there is a haphazard creation of new scientific units, and departments overlapping in their functions and having little or no mobility. This calls for a National Science Council with powers to coordinate, recognise, link and sometimes stop these S&T activities. ii) replacement of unidisciplinary national laboratories by functional groupings; iii) flexible distribution of R&D needs and resources and a study of the question of delinking some laboratories from CSIR and bringing them under the user ministry; iv) restructing the management so that CSIR can interact with other R&D agencies, government departments and public and private sector industries. A reading of the Annual Reports of DST, ICAR, ICMR and HRD shows, on the one hand, the very important work being done by DST on the medical sciences, chemical sciences and physical sciences with no reference to others like CSIR or ICMR on the other,

the impressive research of ICAR in agriculture, horticulture and fisheries, the technology mission in oil seeds and the work of ICMR & NCERT, all important but done in isolation. The New Education Policy document proposes a council on which all these agencies will be represented with a view to some interaction between them and their research work. The Abid Hussain Committee report has had largely negative reactions from the CSIR scientists who oppose the recommendation to transfer some laboratories to the user ministries on the grounds that it will weaken the scientific base and output of the institutions, which has not happened in the Research Associations of Industry attached to the Ministry of Industry, the scientific and technological museums and the various scientific surveys - anthropology, ethnology, geology - which are attached to the education ministry. Above all, the opposition to the recommendation for closer interaction with industry (including earning 50 per cent of their finances) are inescapable, if CSIR is to play a role in industrial development and help lift Indian science from its present level of mediocity. The Science Advisory Council of the Prime Minister which also opposed the Abid Hussain Committee recommendation, has just now recommended setting up a National Science Council. A third important report in the science and the technology area is the report reviewing the functioning of the IITs where the main recommendation is for the IIT staff to spend periodically one year in industry and for industrial engineers to serve for periods of time on the staff of IITs, so that the present attitude of industry keeping off IITs research on the grounds that it is costly and risky might be replaced by industry using IIT research facilities. For this to succeed, there will have to be reorientation of industrial development policy and programmes, which will create a demand for IIT technology and not assume that their is an industrial demand for it, which does not exist. In

turn IITs' equipment which is growing rapidly obsolescent needs to be modernised. This should go hand in hand with a review and recommendation on how far R&D of the IITs is generating and can generate product and process knowhow and how the rapid increase in R&D and R&D agencies, the inhouse R&D of the public and private sector (which despite ICICI's negative report that its R&D fund has no takers) is increasing and can undertake the assimilation, adaptations and further development of imported technology. One of the important developments in 1986-87 and continuing this year is the breakthroughs reported in super conductivity research in IITs Madras and Bombay, IISc, TIFR, BARC & NPL which will have important electronic and industrial applications.

Environment

References were made earlier to the environmental implications of some agricultural, industrial and power projects. Environment has today become a major issue with the people and this people's movement is shaping government policy and action. The Seventh Plan document calls attention to the dilemma in combating poverty through rapid development (one of the 2 factors to lift the poor above the poverty line according to the Technical Note to the Plan document) and the consequences which involve "mismanagement of natural resources, large scale deforestation and the unplanned discharge of residues and wastes"[51]. This has been expressed in the Water and Pollution Acts of 1974 and 1981, and the Environment Act of 1986, establishing States Pollution Control Boards (PCBs) and a Union Air Act and the establishment at the Union level of an integrated department of environment, forests and wild life, which has prescribed minimum national standards for water covering 10 industries, and for air covering 12 industries. As part of the issue of LIs, PCB, NOC and EIA

reviews are undertaken before projects are cleared and for which various state and Union incentives are offered. But both the Union and State governments are preoccupied with the various facets of industrialisation referred to earlier, such as self reliance, indigenous or sophisticated technology, export promotion, backward areas development, saving foreign exchange outgo in the case of fertilisers etc, and in the absence of clear definition of goals of this anti-pollution programme, pollution control is seen by industrialists and others as a delaying and obstructive element to "progress". More recently at the state level, it has also become a fertilie ground for corruption. There are also many difficulties to pollution control, stemming from lack of resources for control including staff and equipment, the delays caused by courts which freely grant stay orders etc. The Environment Protection Bill 1986, referred to earlier, clearly vests power in the Union government to protect the environment, makes a beginning in defining standards, covers all pollutants and wastes. It will have to establish uniform standards, evolve rules to cover locations of industries, control deforestation etc. But now the Union government itself has become the major actor in promoting mal development and pollution in displacing 50,000 people through the Rihal dam, in submerging 400 sq km of forests and condemning 60 per cent of the command area to permanent water logging and salination through the Narmada Valley Project which has just been approved in giving its consent to the Tehridam which has 4 major rockfaults below the construction site and which can destroy the dam and wash away 3 million people living down stream in the army occupying the long Ganganagar-Bikaner-Jaisilmar area ousting the villagers from there (the 1974 oustees have still not been resettled) and in approving industrial projects which will erode the national monument, the Taj. One is reminded of the Tamil saying, about the fence itself eating up the crop which it is supposed to gaurd. Under these condition, there is need for the participation and approval of the

local people in every project based on a completely objective, scientific assessment of the ecological impact of the project. Beyond this, there is the option of giving up big irrigation project such as the Indira Sarovan or Narmada valley, Karo Karo etc which is what a little less development and a little more human well being mean.

Education and Health

The Annual Report for Education for 1986-87 states that it is presenting an integrated presentation of the functioning of the Department of education, Department of culture, Department of Arts, Department of Women and Child Development, Youth affairs and sports as the Ministry of Human Resources Development. It recognises the gaps in this presentation which does not include health and nutrition, and work and employment with which links are to be established. Two comments must be made on the Annual Report. First this kind of presentation does not represent integration of the activities, except that they function under roof and are set forth in one volume. Second human resources development is an integrated development of the human person, involving a joint and comprehensive programme of action of all these 6 parts - which are nowehere in evidence in the report. The major event in 1986-87 was the approval by Parliament of the National Policy on Education 1986 at its budget session, followed speedily by its approval of the programme of action to execute the policy, at its monsoon session. First, the speed and despatch with which the national consultation and debates leading to the formulation of the Policy and the follow up start of implementation within 9 months of its approval by Parliament is to be commended. Second, the major lines of development are based on what has been laid down by the earlier commissions (Radkhakrishnan, Al Mudaliar, Kothari, Ishwarbhai Patel, Malcolm Adiseshiah

etc) and in that sense there was little new. What is new will be its fast and faithful execution. The priorities are right - universalisation of Primary Education by 1990, elimination of adult illiteracy by 1995, vocationalisation of secondary education by getting 20 per cent of enrolled students in +2 to opt for the vocational stream, restructuring higher education through reorganisation of the curricula into core, applied and optional subjects, grant of autonomy to 10 per cent of the colleges, delinking degrees from jobs and promoting an integrated five year course after the +2 in as many areas as possible. In terms of execution, the Union has got the states to establish a list of 20 per cent of primary schools which have no buildings and no furniture and has made available funds amounting to Rs.100 crores for this'operation blackboard' : it is financing the use of university students to operate a mass literacy programme: It is also funding the establishment of District Teacher Training Colleges to rettain teachers in the new curriculum, and has given UGC funds to start 50 autonomous colleges this year. The question marks in this programme are the lack of decentralisation as all the finances are centralised, and the consultation with the states involves a long and time wasting process of travel to Delhi and back, document preparation etc. Second, some of the priorities are misconceived such as the Rs.50 crores allocated and being spent on setting up a model secondary school - Nava Vidyalaya - in every district, which will make no difference to education in the states. When the proposal to bring together the educational and research agencies in higher education, in agriculture, medicine, engineering, social sciences becomes actives as noted earlier, there will be a distinctive contribution to national development through the development of human Resources. The annual report of the ministry of Health and Family Welfare refers to its twin goals of Health for All and Net Reproduction Rate of unity by 2000 through its focus on maternal and child health, and reducing

infant mortality by protecting children against their 6 common ailments - diphtheria, tetanus, poliomyelitis, tuberculosis, measles and whooping cough through the universal immunisation programme operating in 92 districts and oral rehydration therapy. This health effort is on the right lines, except that to reach the first goal, health for all by 2000, in the Seventh Plan Rs.900 crores should have been provided. This means that the goal will not be attained by 2000 and as a compensation there will be a flood of sophisticated curative, hospital oriented medical equipment imported which will not serve the needs of PHCs and the priorities referred to earlier. On the population front, the Registrar General sets forth three scenarios - high, which assumes the present level of contraceptive use of 28 per cent of couples of child bearing age, wherein the birth rates will decline marginally from 32.5 per 1000 to 31, the low under which the contraceptive use is doubled at 62 per cent which will help attaining NRR=1 by 2000, and the medium where contraceptive use is 50 per cent and the birth rate lowered to 25 per 1000. Under these 3 scenarios, population in 2001 will be 1053 million or 959 million or 991 million. There follow details of mortality behaviour, fertility behaviour, age of marriage, urbanisation and education which are set forth by him. The Ministry of Health in its report estimates the population of India on 1 November 1986 at 761 million and claims that 76 million births were averted since the Family Welfare Programme started, and that the couple protection rate is 34.9 per cent. In regard to this programme, studies show that education of women - even their primary education - reduces fertility. While from the short run point of view formal education is not the most effective way of reducing fertility, as our population problem is a long range problem, education of women who are in the reproductive or are about to enter the reproductive age groups, through adult education can

reduce their fertility, which means that female education primary and adult - monotonically increases the use of contraceptives and age of marriage and decreases fertility. Education decreases the non monetary costs of contraception, while increasing their use and reducing fertility. It is, however, important to remember that both high female literacy and low fertility rate are a function of other factors such as the better status of women, better nutrition, and better health care - which is one lesson of human resource development.

We may now turn to analysis of the saving - investment balance, on which all the developments set forth under infrastructure, manufactures and agriculture depend.

Savings and Investment

Now that CSO in early 1987 has published in the National Accounts series the savings and investment rates for the time period 1970-71 to 1984-85, it is possible to follow one single source in compiling the saving and investment rates for the last decade and a half, instead of drawing the data from the three different sources as in the past - the Planning Commission's working group on savings, the annual reports of RBI and CSO. The savings investment profile for the period is set forth in the table below:

TABLE XXX

Year	Savings (At Current Prices)		Investments (At Current Prices)		Investments (At 1970-71 Prices)		GNP growth percentage at 1970-71 prices	Industrial growth percentage at 1970-71 prices
	Gross	Net	Gross	Net	Gross	Net		
1970-71	16.8	12	17.8	13.0	17.8	13.0	6.8	4.2
1971-72	17.3	11.4	18.4	12.9	18.3	-	1.6	3
1972-73	16.2	12.6	16.9	13.4	17.3	-	-1.1	-3
1973-74	19.3	11.8	20.0	13.8	21.4	-	5.	-3
1974-75	18.2	14.5	19.1	15.6	19.3	-	1.2	2
1975-76	20.0	15.5	19.9	15.3	18.3	-	9.2	9.8
1976-77	22.0	18.4	20.4	16.7	19.3	-	0.8	5.3
1977-78	21.6	18.3	20.0	17.7	19.1	-	8.9	6.9
1978-79	24.7	20.0	24.7	19.6	22.6	18.0	5.7	7.7
1979-80	22.5	17.8	23.0	18.3	19.7	-	-4.8	-1.4
1980-81	23.0	17.8	24.7	19.6	22.1	17.2	7.7	4.1
1981-82	23.0	16.6	23.9	18.5	-	-	4.6	8.2
1982-83	22.6	16.9	24.2	18.5	20.8	15.7	1.1	3.9
1983-84	22.2	16.4	23.5	17.8	20.1	14.9	7.6	5.5
1984-85	22.9	16.9	24.4	18.6	20.4	15.1	3.5	5.3
1985-86	22.8	16.7	24.6	18.6	20.4	14.8	5.1	6.3
*1986-87	20.0	18.0	25.0	20.0			4.5	5.5

Source: CSO &
* CMIC & RBI

Contrary to the view that India's savings and investment rates are high, the table shows that net savings at current prices have declined from 20 per cent of NNP in 1978-79 to 16.7 per cent in 1985-86. (The estimate for 1986-87 places it at 18 per cent). This means that India's savings are both low and are declining in the 80s. Net investment at 1970-71 prices are also declining from 18 per cent of NNP to 14.[illegible] per cent during that period. These declines are essentially due to the decline in private inward remittance which the Planning Commission's (KN Raj) working group forecast plus the declining share of public sector savings. This last, the declining share of the public sector savings is not brought out in the latest report of the Reserve Bank[52] which is presented below.

Table XXXI (in percentage)

Sector	1985-86	1986-87
1. Net household sector's saving to NNP of which	15.6	16.7
Savings in financial sector	8.7	9.8
2. Net Public sector's saving to NNP	0.8	0.8*
3. Net Domestic Private Corporate sector's	0.5	0.5+
4. Total investment to NNP	16.9	18.0
5. Inflow of foreign resources to NNP	2.6	2.0
6. Aggregate net investment to NNP	19.5	20.0

Source: RBI

The above data is not very reliable because as the RBI admits, in the absence of SCO's estimate of savings in the public sector and the domestic private corporate sector, it has repeated the rates of 1985-86 for 1986-87. This is questionable particularly for the Public Sector,

because its savings are on the decline at Rs2116 crores (6.6 per cent of NNP) in 1984-85 and Rs1360 crores (3.8 per cent of NNP) for 1985-86. The savings of the household sector form 92.77 per cent of all domestic savings in 1986-87. The break up of the household savings is shown in the table below:

Table: XXXII (percentage of NNP)

Item	1985-86	1986-87
1. Financial Assets in gross	11.3	12.3
2. net	8.7	9.8
of which		
currency	1.0	1.3
bank deposits	4.7	5.3
2. Physical Assets	6.9	6.9
3. Financial liabilities	2.6	2.5

Source: RBI

In the absence of the CSO estimate, physical assets for 1986-87 repeat the 1985-86 data. The financial assets of the household sector have three features: a) first they are nearly double the physical assets of the households. This has helped sustain the high level of public and private sector investment. If the government's promotion of house building and the construction programme embodied in the 1987-88 budget takes effect, there will be an increase in the physical assets in 1987-88: b) second, financial assets record an increasing trend as between 1985-86 and 1986-87 and will continue to do so in 1987-88 though at a lower rate because of the higher household expenditures caused by inflation, caused in turn by the drought, and the push given to investments in buildings: and c) third, the savings in the form of currency has increased, as has the increased savings in the form of bank deposits, because of the large additions

to the deposits of commercial banks, on which there will be some slow down in 1987-88.

The pattern of the country's capital formation is unsatisfactory. The gross domestick capital formation is set forth in the table below:

Table XXXIII

Item	1970-71	1978-79	1983-84	1984-85
1. Gross domestic capital formation	100	100	100	100
2. Less consumption of capital	6.2	25	28.5	28.6
3. Net domestic capital formation	69.8	75.0	71.5	71.4
4. Less inventories	14.1	17.9	14.2	14.9
5. Net fixed capital formation	55.7	57.1	57.3	56.5

Source:CSO

The table shows the little and poor maintenance of existing capital assets, which is one reason for growing industrial sickness. The high inventory record should also be noted. The net fixed capital formation is around 55-57 per cent of gross capital formation and 11-12 per cent of GNP. The high rates of investment is thus being wasted.

Table XXX also shows a reduction in the net inflow of foreign resources in 1986-87 (which may be reversed in 1987-88 in view of the sharp rise in consortium pledges of $1 billion to $5.4 billion). Despite the rather heavy fall in the inflow of foreign savings, the aggregate net investment has increased to 20.0 per cent in 1986-87.

While the savings rate is not very high, as noted earlier, as is the net investment rate when expressed in 1970-71

prices, in current prices it is 26 per cent. The fact that such order of investment results in an overall growth rate of less than 5 per cent for the two years 1985-86 and 1986-87 and an industrial growth rate of 5-6 per cent which is well below the target, points to the inefficient use of capital. Infact there is some wastage of capital seen in the time and cost and over runs of most projects, in the high incremental capital output ratio of 5-6 and in the average 60 per cent use of the capital created.

The Seventh Plan has faced a serious resource pressure from the start. The gross domestic savings by sector of origin for the Plan period 1985-86 to 1989-90 is set forth in the technical note to the Seventh Plan document. This data is presented in the table below:

Table: XXXIV

(1984-85 prices)

Item	Rs crores	Percentage
1. Public savings comprising:	57,472	19
a) government and public enterprises (non fiscal)	49,156	16.3
b) Public enterprises (fiscal)	8,266	2.7
2. Private savings comprising:	2,44,144	81.
a) household sector	2,16,165	71.5
i) financial savings	1,02,253	33.8
ii) physical assets	1,13,912	37.7
b) Private corporate & cooperative sector	28,779	9.5
Total Domestic savings	3,02,366	100

Source: Planning Commission

The actual composition of domestic savings in the first two years

of the Plan shows that a) the public savings under government (because of the run away non plan expenditure) and non fiscal public enterprises (because only the crude and petroleum sector are profit producting) are lagging seriously behind the assumptions in the above table. On the other hand, during the first two years, the financial savings of the household sector are running at double the physical assets, in contrast to its 15 per cent higher level assumed in the Plan document.[53].

Overall the resources being raised through the public and private sector show a growing gap, seen in an earlier section, which the government is trying to cover through a) increased tax collections, which are now levelling off b) increased market borrowing which is leading to the interest to be paid forming more than 25 per cent of the total non plan expenditure, and c) deficit financing which fuels the inflationary forces. Hence the government has permitted public sector enterprises to accept deposits (from 1971-72) and to raise loans from the capital market through bonds and debentures. The question that this raises is that given the limited capital resources available, there is the possibility, as noted earlier that the public sector will be crowding out the private sector, and make the private sector also face a resources crunch. A study on this issue [54] shows that the gross domestic capital formation of the public sector is high, which, given that its own savings are declining or stagnant as shown in tables XXX, involve drawing on foreign savings and the household sector savings. The only way that there can be a long term trend of increase in the volume of house hold savings is for the GDP growth to continously increase to make possible the increase in house hold savings. If GDP growth is at the present low levels, and if there is a constraint in household financial savings, investments

can be maintained or increased only if the propensity to save is increased in both the public and private sectors. The public sector savings target set forth in the LTFP document is 4.3 per cent against the current 2.3 per cent. If investment in the private sector falls as it seems to be doing, in the absence of a marked increase in house-hold financial saving, there will have to be increased reliance on foreign capital inflows, which not only negates the objective of self reliance, but which also involves imports of high cost, not very uptodate machinery and equipment that bilateral/consortium "aid" bring in or on international commercial loans which might lead to the debt trap. Hence the propensity to save needs to improve and increase in the household, public and private sectors and the financial instruments and the fiscal means to this end need to be created.

Foreign Trade and Balance of payments

The foreign trade and balance of payments data for 1986-87 and projections for 1987-88 are set forth in Part I. As the technical note of the Seventh Plan reminds us, the structure of exports is determined by domestic production capability and consequent export surplus, world demand and prices, and entry into international markets and the decisions of the export promotion councils in the case of new products. Imports on the other hand comprise foodgrains, 20 major items of bulk imports and non bulk imports composed mainly of engineering goods and machinery. Bulk imports are derived as a residual after subtracting domestic product from demand, as revised by the foreign exchange availability and industrial policy directions, in this case what is called the liberalised import policy.

The 1986-87 foreign trade record released by the Directorate General of Commercial intelligence and Statistics (DGCI&S) referred to in part I is that exports increased by

10.4

20.4 per cent to Rs12550 crores, non oil exports increasing by 22 per cent. Imports were Rs20063 crores, which was a rise of 9.2 per cent, despite the substantial saving on the oil import bill. This question has been raised earlier as it relates to our crude oil purchase policy. As a result there was a reduction of Rs.438 crores in the trade deficit to 7513 crores. The projections for 1987-88 given in part I are supported by the latest information released for the first four months of the current year, April-July 1987 when exports rose sharply by 25.6 per cent at Rs4792.36 crores, while imports rose by 15 per cent at Rs6906.3 crores. The trade deficit for the four months was Rs.2192.2 crores, which was a decline of 3 per cent.

In terms of policy, the Abid Hussain Committee report reviewed in last year's mid year review of the economy continued to have a dominant impact in its advocacy of import liberalisation and "efficient" import substitution which would contribute to an expansion of exports, to modernisation for export oriented growth. The liberal import policy which follows from this emphasis on modernisation is also part of the World Bank's conditionalities as made clear at the 1986 and 1987 consortium meetings and the buoyancy of LIs, ILs, foreign collaboration aagreements and capital sanctions issued, which rests on the large and liberal imports of technology, capital goods, machinery and spare parts. The policy is also sustained by the growing gap between rate of growth of domestic savings and that of gross investments outlined in the previous section which can be filled by drawing upon foreign resources in the form of liberal imports - as in the case of power machinery, electrical equipment, automobile components etc. The other side of the coin was seen both by the Planning Commission and the Prime Minister's economic advisory council who have been recommending a reversal of the liberal import

policy in order to ward off the looming foreign exchange crisis that they foresaw. There were also deeper issues involved, namely that such import liberalisation goes along with technological dependence, financial indebtedness, inappropriate technology and the worsening social imbalances. But these macro economic arguments were less effective than that of various industrial pressure groups, which led to the small concessions in the 1987-88 budget in the matter of capital goods imports as noted earlier.

At the start of 1986-87, the problem of the falling value of the Rupee began to attract attention. The value of the Rupee which was Rs.7.75 to the US dollar in October 1980 fell by 40.9 per cent to Rs.13.02 per cent in April 1987; the Deutch mark was equal to Rs.3.63 in July 1981 and rose by 50 per cent to Rs.7.27 in January 1987; the yen was 3.205 paise in February 1980 and rose by 62.4 per cent to 8.52 paise in January 1987; the pound sterling as the intervention currency was worth Rs.14.15 in February 1985 and in April 1987 rose by 30 per cent to Rs.20.20. SDR which cost Rs.10.06 in March 1981 rose by 64 per cent to Rs.16.35 in January 1987. This erosion of the value of the rupee has increased India's indebtedness. As the Economic Survey shows India which borrowed Rs.4162.1 crores from the Extended Financial Facility of IMF in 1982-83 will be repaying it Rs.6361.5 crores - which is a 52.8 per cent increase.[55] But even more serious is that fluctuating value of the Rupee - not simply its erosion - has a negative effect on trade and business. Floating exchange rates are of course no new phenomena to the business world - even the fast and violent fluctuations in 1978-79 in response to which business houses developed successful policies with the help of banks and investment houses to protect themselves from exchange losses following high fluctuations of the currencies. There is no such machinery in India, not only against the fluctuations of the foreign

currencies but also against the fast eroding value of the Indian Rupee, as summarised above. To start with, it is suggested that the depreciation of the Rupee should not be measured against the dollar, deutsch mark, yen, pound or franc, but against SDR, because we have to repay the largest loan, the IMF loan, in SDRs and the SDR fluctuates less widely than the other currencies. Hence it is suggested[56] that the Ministry of Finance and the Reserve Bank evaluate separately each currency fluctuation in order to develop a strategy to limit liabilities in currencies whose fluctuations involve unduly heavy losses to India and its trade and business. This analysis of the Indian Rupees relations with the fluctuating currencies, should held to develop a defence machanism like forward trading to limit exchange losses. Externally the average decline of the Rupee against leading currencies in 1985-86 and 1986-87 has been 20 per cent and against all currencies 29 per cent, while Indian rates of inflation were well below 10 per cent. Hence, and incidentally, it is not true that the weakness of the Rupee internally leads to losses in external values. The keeping down of inflation within India does not prevent the Rupee losing its value externally. What is needed is both an internal policy against inflation, and a strategy to strengthen the external value of the Rupee and for this latter, a forward trading market can help.

In 1987-87 India started on counter trading through MMTC with Jordan on wheat against rock phosphates, with North Korea on wheat against zinc, with Italy on various products against technology, with Austria on wheat, rice, engineering goods and agro based products against pig iron and billets, with Yugoslavia on cotton against corn, with US on Dunlop tyres against [illegible] Diammonium phosphate, with Gulf countries on construction work against sulphur, with Poland on iron ore and pellets against power plants and coal etc. This form of trade raises several questions such as with what countries should counter trade [illegible]

be developed, what transactions are to be the subject of counter trading, and what products to be offered in counter trade, what is to be the extent of counter trade purchase, what should be the period for the completion of the counter trade purchase, what are the bilateral character of the deal, what are the products to be imported under counter trade, and what should be the prices of both import and export products. The government and the Trade Councils should consider these issues and lay down the ground rules for future policy.

On project exports, the situation is somewhat confused. On the one hand, the commerce ministry in order to encourage project exports grants a 50 per cent subsidy on approved tenders, 10 per cent as project assistance, and graded financial support for 5 years for offices set up abroad. This last seems questionable, as India has 250 consultancy organisations employing 25000 professionals, but who have been able to develop consultancies, and expand exports by a mere Rs50-60crores. It is ture that project exports have received a set back since 1982 when the construction boam ended in the gulf countries. But that is not the whole story. As analysis of the 172 bids valued at Rs.8333 crores in 1985 and 173 bids valued at Rs.3120 crores in 1986 by the Export-Import Bank shows that in 1985 only 34 per cent in number and 17 per cent in value were successful, and in 1986 only 28 per cent and 12 per cent respectively. The reasons for the heavy loss as set forth by the Bank are a) lack of price competitiveness - 50 per cent lost due to price difference of 10 to 29 per cent; and b) terms of credit led to loss of 5 per cent. In construction projects 71 out of 90 bids were lost due to credit terms and in power equipment 48 out of 57 bids were lost due to the uncompetitive price. These causes for the loss in projects point to the director for reform.

In the general context of the role of the private sector firms in exports, ICICI in its annual report, Financial Performance of Companies 1985-86 reports:

i) 260 out of 417 units sampled exported 5.4 per cent more but their ratio of exports to sales declined by 5.9 to 5 per cent; ii) the foreign exchange outgo of the exporting companies increased by 35.1 per cent, while their export earnings went up only by 8.4 per cent - a net outgo of Rs.281 crores against an inflow of Rs.39 crores; iii) the consumption of indigenous raw materials rose by 11.3 per cent as against the 30 per cent increase in the consumption of imported raw materials; iv) the ratio of their incentives to earnings rose from 10.6 per cent to 11.7 per cent, with automobiles, chemicals, ferrous metals using more incentives than their earnings. NCAER in its study also states that large units are contributing decreasingly to the exports of the corporate sector.

Among individial items, the following tables XXXIV & XXXV show that in exports, non traditionals are expanding their share of the total export trade at a faster rate than traditionals (the 1986-87 data is only for 6 months) In imports, table XXXV shows that after pertroleum, capital goods imports are the largest item. Any import saving will have to be in those 2 items plus fertilisers, edible oils and iron and steel. The two tables show clearly that the claim of precious stones to be in the forefront of exports is false, because the Rs.1429.91 crores, giving a net export of a little over Rs.300 crores. This consideration also applies to the engineering items.

TABLE XXXV

EXPORTS BY MAJOR COMMODITY GROUPS

	ITEM	1984-85 Rs. Crores	% Age share	1985-86 Rs. Crores	% Age share	1986-87 Apr.-Sept. Rs. Crores	% Age share
T	Cashew	179.68	1.63	215.33	1.96	192.10	3.28
NT	Coffee	210.22	1.90	235.64	2.14	203.86	3.48
NT	Marine	381.37	3.46	388.60	3.53	180.45	3.08
T	Oil Cakes	136.92	1.24	123.54	1.12	89.93	1.54
T	Cotton	39.73	0.36	65.82	0.60	84.12	1.44
NT	Rice	169.19	1.53	192.94	1.75	85.49	1.46
T	Spices	206.67	1.87	255.00	2.32	163.09	2.78
NT	Sugar	36.13	0.33	10.99	0.10	0.74	0.01
T	Tea	76.69	0.69	611.91	5.56	207.66	3.55
T	Tobacco	178.34	1.62	146.69	1.33	130.06	2.22
NT	Iron Ore	459.44	4.16	354.59	5.04	226.13	3.86
NT	Engg.	880.25	7.97	760.29	6.90	416.17	7.10
NT	Chemical	482.86	4.37	285.89	2.60	187.39	3.20
NT	Ctn. Fabric	450.50	4.08	371.57	3.37	209.08	3.57
NT	Iron & Steel	75.73	0.69	48.12	0.44	31.31	0.53
T	Jute Mfrs.	345.26	3.13	269.60	2.45	108.92	1.86
NT	Leather	743.22	6.73	520.94	4.73	283.67	4.84
NT	Readymades	919.23	8.33	1007.50	9.15	489.90	8.36
T	Handicraft	502.00	4.55	420.24	3.82	1000.64	17.08
NT	Prec. Stones	1153.27	10.45	1429.91	12.99	83.39	1.42
NT	Others	1847.83	16.74	2961.70	26.90	1483.44	23.33
NT	Crude Oil	1563.16	14.16	135.15	1.23	0.00	0.00
	TOTAL	11037.69	100.00	11011.96	100.00	5857.44	100.00
	Traditionals (T)	31.83%		42.24%		56.99%	
	Non-Traditionals (NT)	68.19%		57.76%		43.01%	

Source derived from Economic Survey 1986-87 & Annual Plans 1986-87

TABLE XXXVI

IMPORTS BY MAJOR COMMODITY GROUPS

ITEM	1984-85 Rs. Crores	% Age share	1985-86 Rs. Crores	% Age share	1986-87 Apr. Sept. Rs. Crores	% Age share
Capital GDS	3167.80	18.60	3683.73	18.63	2371.67	15.67
Cereals	242.00	1.42	88.88	0.45	17.14	0.19
Chem. Prod.	135.48	0.80	116.57	0.59	48.41	0.52
Edible Oils	921.07	5.41	614.27	3.11	323.84	3.51
Fert. Crude	137.47	0.81	124.44	0.63	69.64	0.73
Fert. Fin.	1006.57	5.91	822.53	4.17	249.69	2.70
Iron & Steel	941.10	5.52	1230.85	6.23	734.68	7.95
Medicinal	137.14	0.81	163.57	0.83	75.64	0.82
Non-Met. Min	82.18	0.48	81.48	0.41	43.82	0.47
Non-Ferous	411.73	2.42	468.51	2.37	197.07	2.13
Org. Chem.	856.65	5.03	879.38	4.45	438.29	4.74
Paper	195.48	1.15	195.24	0.99	108.09	1.17
Prec. Stones	1032.11	6.06	1106.26	5.60	678.77	7.35
Petroleum	5409.05	31.75	4990.14	25.27	1098.60	11.89
Instruments	287.06	1.69	347.99	1.76	204.27	2.21
Fibres	60.27	0.35	55.72	0.28	24.53	0.27
Others	2011.04	11.81	4777.21	24.19	2554.86	27.65
TOTAL	17034.20	100.00	19746.77	100.00	9239.01	100.00

Source: Same as Table XXIX

NRI investments and deposits increased in 1985-86, the major increases being in Bank deposits (NRE and FCNR accounts from Rs3818.57 crores on March 31, 1985 to Rs5649.69 crores on 31 March 1986 and in 1986-87 to Rs7388.92 crores as at 31 December 1986. This is 'hot money' flowing into the country because of the repatriation rights and very high interest rates offered. portfolio investment, on the other hand, has not attracted funds, moving from Rs46.87 crores on 31 March 1985 to 58.32 crores on 31 December 1986 and direct investment from Rs244.87 crores to Rs941.72 crores. The aggregate NRI funds has helped meet the balance of payment pressure.

The international market commercial borrowing approved in 1985-86 total Rs1700.18 crores (public sector Rs950.97 crores, Financial Institutions Rs379.58 crores, shipping Rs74.22 crores and private sector Rs295.41 crores), and in 1986-87 April to September Rs648.74 crores (Rs324.61 crores, Rs173.74 crores, Rs32.35 crores and Rs118.04 crores respectively). The government is rightly keeping commercial borrowings under limits of around Rs1500 crores per annum, since the start of the Sixth Plan. Debt servicing is rising, and to IMF the repayments range from SDR 250.296 million in 1985-86 to SDR 524.805 million, totalling SDR 4,495.509 million. India's foreign exchange reserves as expressed in Rupee by the Reserve Bank are misleading, because of the deteriorating value of the Rupee. In 1986-87, the country's foreign exchange reserves, comprising foreign currency assets of RBI, gold holdings and SDR rose by Rs331 crores to Rs8151 crores at the end of March 1987, as against an increase of Rs577 crores during 1985-86. In SDR terms, however, the reserves amounted to SDR 5113 million at the end of March 1987 showing a decline of SDR 615 million, against a decline of SDR 276 million in 1985-86. This represents the drawals on

the country's foreign exchange reserves that was necessary to meet its balance of payment deficit.

Employment and Labour Relations

As usual, data on employment and unemployment are scarce, in some cases non existent, and in all cases discontinuous, and have to be derived from various sources such as the Census, Plan documents, NSS etc. The result is that they are sometimes contradictory and cannot be reconciled. It is well to start with the structure of employment as set forth in the official documents as at March 31, 1985. The Economic Survey 1986-87 reports[57] that employment in the organised sector as at March 31, 1985 was 24.6 million. The Seventh Plan document[58] states that the total number employed on March 31, 1985 is 186.7 million, from which the number employed in the unorganised sector can be derived as 162.07 million - giving a percentage distribution between the 2 sectors of 11.2 and 86.8. On the status of unemployment, the Seventh Plan reports the labour force on March 31, 1985 at 305.40 million, the overall employment at 186.71 million, showing a gap between the two at 118.69 million (which gives an unemployment percentage of near 30 per cent). The 38th round of NSS in its first two sub rounds covering the period January-June 1983 reports unemployment at 9.20 million.[59]

There is no attempt made here to reconcile the above statistics in this note. The Annual Report of the Ministry of Labour quotes this figure of unemployment 9.20 million unemployed persons as obtaining at the beginning of the

Seventh Plan (which it later terms as "the backlog of unemployment at the outset of Seventh Plan") and admits that estimates for later periods are unavailable. It reports that the number of job seekers registered in the country's 821 employment exchanges increased from 26.27 million on December 31 1985 to 30.13 million on December 31, 1986. It calls attention to the Seventh Plan estimate that during the Plan 40.38 million standard person years of employment will be generated, while also recording the backlog of unemployment at the start of the Plan at 9.2 million, and the net addition to this labour force at 39.38 million, so that at the end of the Plan there will be on the basis of these figures an unemployment backlog of about the same number as at the start - though neither the Report nor the Plan document acknowledge this awkward fact.[60]

The Annual Report states that in 1985-86 employment in the organised sector rose by 1.[illegible] per cent, and by 23 per cent in the public sector and 0.7 per cent in the private sector. In the special programmes it reports that:
1) the employment of women increased from 31.62 lakhs on March 31, 1985 to 32.53 lakhs on March 31, 1986, with the growth of 4.5 per cent in the public and 0.5 per cent in the private sector. In connection with the employment of women in the private sector, their employment in the Free Trade Zones raises many questions. In SEEPZ, for instance, 91 per cent of workers are women, compared to 20 per cent in NECCO and 1 per cent in Larsen and Toubro (L&T), they are paid Rs450 a month at SEEPZ, compared to Rs1000 at NECCO and Rs2000 at L&T, they are given unskilled or semi skilled jobs and face special health problems as well as the timings of their shifts.

ii) NREP generated 316.1 million mandays of employment in 1985-86 and 214.9 million mandays in 1986-87 upto September 1986; iii) RLEGP generated in 1985-86 231.88 million mandays and 119.18 million mandays upto September in 1986-87; iv) the educated self employment programme benefited 2.21 lakhs in 1985-86. This rather fragmented account of employment generation does not give a total picture of employment, unemployment and underemployment in the rural areas.

A number of empirical studies[61] on agricultural employment show that: i) there is no relation between a percentage change in agricultural employment and a percentage change in agricultural output. In the seventies while output increased by 20 per cent, employment increased only by 4 per cent; ii) an increase in irrigation and biochemical inputs increased farm employment via cropping intensity and pattern, but mechanisation results in decreased employment in individual crops; iii) small farms are more labour intensive than large ones, which, however, with the use of the new technology show some decline, particularly in family labour being replaced by wage labour, with lower levels of casuals; iv) the new technology tends to decrease the female labour employed; v) the impact of the technology on non agricultural employment constituting 20 per cent of the rural work force, on allied agricultural activities covering rural crafts, animal husbandry, forestry and fisheries and the displacement of artisans involved in agricultural production through its commercialisation has not been studied and requires some intensive investigation. Studies of NSS and Farm survey data also show that i) the demand for labour that has occurred has

not been adequate to productively and remuneratively employ all the increase in the labour force, and ii) technological change has improved the lot of labour, the level of its employment and real wages. But this impact is not significant because of the much larger increase in the rural work force, and the growth rate and technology of the non agricultural sector not reducing its heavy dependence on agricultural employment. In this connection a micro study of 450 sample households in 3 Punjab districts,[62] of how far a higher level of development benefits the weaker sections shows that as a result of such development, the per capita income and consumption of marginal farmers and agricultural labourers was 40.55 per cent higher and poverty levels in these households lower. In fact even though agriculture is a minor source of income to them, the per capita incomes of agricultural labour households were higher in all 3 districts compared to that of the marginal farmers. The hypothesis is advanced that the Green Revolution in these districts has made wage labour more remunerative and marginal farming less so.

In regard to labour relations, the most significant development in 1986-87 (April 1987) was the setting up of the National Commission on Rural Labour - the most neglected labour sector. Behind it, in December, the labour ministry presented a report from the National Institute of Labour (NIL) showing that there are 115 million unorganised agricultural workers, that their minimum wages as fixed by the states range from Rs8.5 to Rs12.75 per day which is Rs3600 a year, and that as the updated official rural poverty line is Rs6400 per household per year, the agricultural labourers who are receiving minimum wages are living in poverty: the

minimum wage legislation for agricultural workers, and a comprehensive law for social security, insurance and safety of construction workers are pending for years, except in Kerala. The Consulative Committee of parliament on receipt of this report set up a group on unorganised agricultural labour, and a second group on the other unorganised labour. Even within the government, however, these developments are opposed because they will help organise the unorganised workers and disturb 'the placid contentment' of the rural countryside. Even in an otherwise progressive state like West Bengal, NIL reports that minimum wages i) have not been revised for over 5 years, ii) do not cover all sweated occupations, iii) do not conform to the 1957 norms, and iv) vary from region to region and even within the same region.

The other issue is with regard to child labour on which 1986-87 the Child Labour (Prohibition and Regulation) Bill 1986 was adopted by Parliament to regulate the working conditions of children in non hazardous employment, and to empower the government to make rules for the health and safety of children. The Bill has several lacunae. i) it ignores the overall commitment to the child, set forth in the SAARC covenant on the child adopted at the urging of India: ii) it does not add anything to the existing legislation to protect the child; iii) it is based on the belief that the banning of child labour will contribute to poverty, while ILO points out that the use of child labour makes for poverty: (in this connection, in a revealing statement the head of the handloom and handicrafts corporation states that this industry will collapse without child labour): and iv) diseases like silicosis which strikes

down children working in the slate industry or lung infections which are a part of the fire works industry are not taken seriously and the occupations banned. Removal of exploitation, rather than providing relief to the exploited, should be the basis of any child labour legislation.

Another worrisome problem is that of Bonded Labour. The Annual Report states that only in 3 states have all the bonded labourers been freed and rehabilitated - Kerala, Haryana and Gujarat. As the Union government is dependent on this matter on reports from the state governments, it reports that the total number of bonded labour identified and freed are 2.14 lakhs, which is less than 10 per cent of the 22.4 lakhs of bonded labourers identified in 1979 by the Labour Bureau and the Gandhi Peace Foundation National Survey. The process of rehabilitation of those who are freed is even slower at 1.75 lakhs. Three new developments might speed up and put fresh life into the scheme. The first is the Union sponsored scheme under which from 1.2.1986 each freed labourer is entitled to Rs6250 to finance a land based, or animal husbandry based or skill craft based scheme which he chooses. This scheme should be tied in with IRDP. Second Union officials are conducting on the spot reviews of the state government programmes, which means that the Union is no longer solely dependent on the unreliable reports of some states. Third voluntary agencies are being invited to help in implementing the scheme, and for this Rs1 crore has been provided in the Plan. This is hopeful.

The Indian Labour Journal for December 1986[63] makes a convincing case for an index number of wage rates. Defining wage rates as the price of the working expended over time or performance, and for the wage rate index as the sum of basic wages plus dearness allowance, the index number of wage rates is set forth for 21 industries for the years 1969-83 - ranging from 5..2 to 24.1 per cent in smelting and refining to 8.4 to 28.4 per cent in mining. The one limitation of the index is similar to that of the consumers price index in measuring relative changes over time in selected industries, and so not providing a sufficient basis for the study of inter industry differentials. The Journal for June 1987 reports[64] on a survey of cotton textile industry in Madurai District aimed at examining the extent of satisfaction/ dissatisfaction on job factors as perceived by the workers and trade union leaders. The conclusion was that the most dissatisfied job factor as perceived by both were "wages and allowances" and "work load" because of the problems of retention, preventing wages from falling, and the desire for improvement. From official sources, it has been found that the price increased by 10.2 per cent per year, whereas the real wages increased by 8 per cent, though money wages increased by 22.7 per cent. On top, when money wages revision takes place, there is also an increase in workload - both of which lead to dissatisfaction.

The Annual Report refers to a marked improvement in the industrial relations situations in 1986. The number of mandays lost in 1986 as a result of strikes/lockouts were 22.10 million compared to 29.37 million in the corresponding period of 1985. The number of strikes and lock outs also declined to 1580 in 1986 compared to

1716 in 1985. But the discontent within most of the industrial units was serious and is partly documented in the previous paragraph.

Poverty and Inequality

In a society dominated by poverty and pervaded by inequalities, the main purpose of the functioning of the various sectors and sub sectors of the economy, detailed upto this point, is to rid the economy of poverty and reduce the inequalities. In this concluding section, the extent to which this purpose is being achieved is reviewed.

In regard to poverty, the somewhat stagnant factual situation was analysed in Part 1. The Technical Note on the Seventh Plan, now rather tardily made available, confirms the five point critique made in the last mid year review of the exercises undertaken by the Planning Commission in concluding that poverty in the country was reduced from 48.3 per cent of the population in 1977-78 to 37.4 per cent in 1983-84. These 5 points refer to
a) the construction of the nutritional poverty line:
b) the mixing of the CSO means and the NSS mean:
c) the preference for CSO's final private consumption deflator over that of CPIAL; d) the use of NSS distribution and the 2 poverty lines, 2 price deflators, 2 expenditure distributors and the resulting 8 variaties in the poverty ratio: and e) the varying cause and effects for the state involved in combining the poverty ratio, the distributional aspects of the Lorenz ratio, and per capita consumption expenditure. This critique also applies to the Seventh Plan target, because they are derived through

applying the same methodology (as the technical note makes clear), to arrive at a reduction of rural poverty from 39.9 per cent in 1984-85 to 28.2 per cent in 1989-90, a reduction of urban poverty from 27.7 per cent to 19.3 per cent during that period, involving the overall reduction from 36.9 per cent to 25.8 per cent.

The commission attributes the reduction of poverty to a) the extent of 55.38 per cent in rural and 83.89 per cent in urban areas because of the growth factor: b) 44.62 per cent in rural and 16.11 per cent in urban areas because of the beneficiary oriented programmes. This means that growth is the major cause for poverty reduction in both rural and urban areas, over looking the fact that empirical studies[65] show no linear relationship between the incidence of poverty and the mean income levels or yield of crop output. Unlike the study in Punjab, these studies in Gujarat, Maharashtra and Tamil Nadu show that increased agricultural production have not benefited agricultural labourers who are the majority of rural poor, these wages have remained stagnant because of the pressure of the population on land, the gains in employment following from multiple cropping have been undermined by heavy tractorisation.

Turning to the beneficiary oriented programmes factor, in its review of the 1986-87 Plan the government reports that 3.8 crore people were raised during the year above the poverty line against a target of 35 crores, involving an investment of Rs1567 crores including Rs971 crores of bank credit. The Annual Report of the Department of Rural Development 1986-87 outlines the reform of IRDP, which in ten months between April and January 1986-87

disbursed 69.1 per cent of its allotment at Rs375.81 crores, and 71.39 per cent of credit at Rs621.21 crores, assisting 25.25 lakh families (72.16 per cent of the target), involving a) strengthening of the administrative machinery, the District Rural Development Agency (DRDA) and strengthening the block machinery, b) undertaking every month concurrent evaluations by independent agencies which showed that i) 78 per cent of the coverage was the poorest of the poor, ii) 45 per cent of the assisted families had no overdues and 33 per cent less than Rs1000, iii) in 71 per cent cases assets were intact, iv) input and marketing facility were available in 85 per cent cases, v) assets generated incremental incomes of more than Rs2000/- in 26 per cent cases, between Rs1001/- Rs2000 in 24 per cent cases, between 500 and Rs1000 in 15 per cent of cases and upto Rs500 only in 11 per cent of cases, vii) 54 per cent of old beneficiaries crossed the poverty line of Rs3800 and 12 per cent the revised poverty line of Rs6400 and vii) 38 per cent of families had more than a 50 per cent increase in family income. On the negative side the evaluation showed that 9 per cent of assisted families were ineligible, working capital was not provided in 32 per cent of cases, the repayment period was fixed at less than 3 years in 26 per cent cases and 3 years in 36 per cent, insurance of assets not done in 23 per cent cases, no after care support provided in 42 per cent out of 68 per cent requiring it, and in 24 per cent cases there were no incremental incomes. In light of these negative findings, the department reports further reforms to improve implementation. Under TRYSEM in 1986-87 1.03 lakh youths were trained upto January 1987 and self employment developed for 45.5 per cent of them (0.47 lakhs) and wage employment secured for 0.06 lakhs. In NREP upto December 1986 Rs396 crores were disbursed along with

7.58 lakh tonnes of foodgrains which generated 256.03 million mandays of employment against the target of 275.08 million mandays. In its review of the 1986-87 Plan, the government announced employment generation of 380 million mandays. The departments' evaluation of this programme is: i) in 1985-86 20,269 school buildings were constructed/repaired, in 1986-87 upto December 1?234 school buildings were built or repaired: ii) works are being undertaken through DRDA and Panchayati Raj: iii) wages are promptly paid. On the negative side, it is pointed out that employment is for short periods, there is inadequate planning and coordination, the poorest are not selected, and there is no provision for the maintenance of assets. Under RLEGP, a social forestry scheme was launched in 1985-86 for Rs92.50 crores and in 1986-87 Rs138.99 crores have been sanctioned. Upto September 1986 Rs23.68 crores have been spent and an area of 89871 hectares brought under afforestation. The programme is also assisting in the construction of rural sanitary latrines, parts of NMP and operation Black board, and generated 288 million mandays of employment during 1986-87 against a target of 236 million mandays. The evaluation of the programme which is now 3 years old shows that planning and preparation of a shelf of projects is not done, monitoring is poor, employment generation is unsatisfactory.

The Annual Report refers to the Programme Evaluation Organisation (PEO) undertaking a review of NREP in 9 states. The report of the PEO is now in and is somewhat contradictory. On the one hand it states that the NREP employment target of 350 million mandays achieved in 1981-82, 1982-83 and 1984-85. But it also states that not only is the execution of the programme in all

9 states tardy, but the lack of data on the programme is disturbing - lack on the number of families working on NREP works, on the number of members from each family, on the breakup of the material and wage costs and the numbers benefiting from each, on the expending of NREP funds separately from the states' own funds, on checking the reports sent in by gram panchayats, and on the discrepencies between reported creation of mandays of employment and amounts reportedly spent. Except in Kerala, Gujarat and Rajasthan, other states have not prepared a shelf of projects - all of which makes it easy for the programme to be diverted for the benefit of the affluent farmers. The report underlines the urgent need to streamline the procedures. The government's decision to set up a committee to simplify and shorten IRDP procedures as sound as they now involve a household survey to identify the eligible family followed by DRDO and block selection, followed by preparing documentation for bank loans and ending with procurement and distribution of assets to the beneficiary. A similar exercise is needed for NREP to correct the errors identified by PEO and before that by the Public Accounts Committee of Parliament, which held that the state governments were making ad hoc allocations instead following the norms of 15 per cent for the programme of agricultural labourers and 25 per cent for poverty alleviation, that there were big short falls in the utilisation of funds and large scale diversion to entirely unrelated purposes, leading to wastage and misuse; that the 40 per cent wage to be paid in grains was not followed and that contractors continue to be used. On this basis, the committee went further than PEO and stated that the government's claims about the results of NREP cannot be accepted. This is serious, as it invalidates the claim that some 3.8 crores

people among poor are benefiting from the beneficiary oriented programme.

On the other hand there are some positive evaluations. IIPO[66] points out that the main findings of the concurrent evaluation undertaken between Oct. 1985 to September 1986 is that i) 58 per cent of assisted families belong to the destitute group (Rs1 - Rs2265) and 41 per cent to the very poor (Rs2266-Rs3500); ii) 56 per cent of the beneficiaries were selected by the gram sabha meeting; and iii) 78 per cent found the subsidy and credit adequate to acquire the desired asset. The other positive and negative results have been recounted earlier.

The other somewhat arresting study is that by the Institute of Social and Economic Change (ISEC) which in a socio economic survey of 24,000 households in 245 villages, most in a drought prone area[67], found: a) in agriculture, Karnataka's dry land farming is doing better than all India, as in ragi with the annual growth of 1.9 per cent against the all India 1.5 per cent, in jawar 3.8 per cent versus 1.5 per cent, in bajra 2.9 per cent versus 1.? per cent, in maize 6.3 per cent versus 0.8 per cent, in gram 1.9 per cent verus 0.6 per cent and in tur 3.1 per cent versus 0.4 per cent for all India. This break through strengthened the economic viability of the small and medium farmers, giving them the capacity to go beyond bare living, to invest their resources in the farm and its equipment; and land distribution not being unequal (62 per cent of holdings are 1 - 10 hectares) covering two thirds of the land, while only 5 per cent of holdings are above 10 hectares, and the delivery system reaching the bottom farmers as seen in the fact that

44 per cent of beneficiaries for irrigation loans are those owning less than 2 hectares, there is no attempt on the part of the well to do farmers to corner state aid that is meant for the dry land farmers: ii) employment programmes are well organised - in 1982-83 16463 works taken up, 333 million mandays and in 1985-86 46,691 and 948 million mandays upto February 1986. This employment programme has created community drinking water wells, small low cost houses, provided staple foodgrains at subsidised prices, which are all of no interest to the rural elite: iii) on income generation, the study shows that before RLEGP, 75 per cent of the people were below the poverty line, after the programme the percentage decreased to 53 and if RLEGP covered the gap between actual and full employment, the percentage would fall to 30: iv) this also changes rural structures, giving the rural poor an opportunity to press the state for more of a voice in their programmes of development. The weakness of the programme is in some part of its poor rural assets such as the roads which are washed away, of school buildings collapsing, and of irrigation tanks not being as effective as wells. The ISEC study shows that the IRDP programme covers 47 per cent of landless labourers, 47 per cent cultivators and 6 per cent rich farmers, so that there is not much leakage. 70 per cent of the beneficiaries receive agricultural and animal husbandry benefits and only 9 per cent benefits in village industries. Reduction of poverty is highest (58 per cent) in animal husbandry, followed by traders 56 per cent, agriculture 52 per cent, dairying 35 per cent and village industries 23 per cent. IRDP schemes were abandoned most by landless labourers (36 per cent) followed by cultivators (28 per cent). The report says that there is some reduction of the hold of the rural elite over rural masses and that the programme

makes rural groups more outward looking. This balanced review is a necessary reminder that poverty alleviation is part of a total process of rural development, which goes beyond budget allotments, cash and foodgrains distribution to the organisation of the people concerned, to legal aid for securing their rights, and realisation of the entire minimum needs programme including adult and primary education, health and immunisation of children, drinking water facilities and the protection of the forest dwellers in using forest products. The beneficiary oriented programmes can alleviate poverty, if they are part of a total package of rural development.

On the problems of inequality, Part I gives data on inequalities in the rural areas. To that data, should be added the fact that agricultural labourers as percentage of the workforce increased from 17.2 per cent in 1961 to 26.9 per cent in 1981. The Agricultural census shows that marginal operational holdings were 36.20 million in 1970-71 and are now 50.52 million. Marginal holdings are increasing at the rate of 4 per cent, bringing out the fact that marginalisation is due to immiseration of the small and marginal farming community.[68] Further employment growth being slower than population growth, particularly in the rural area, as noted earlier, real wages (rural) are falling.[69] To this growing data on rural inequality, the inequality in the non agricultural (urban) sector, leading to the growing volume of 'black money' documented by the Indian Institute of Financial Management and Policy and the flight of Indian capital to tax havens abroad, documented for one country by the IMF staff study, should be added. In particular, attention is invited to the sectors of the population,

who save the 22 - 23 per cent of GDP referred to earlier. According to NCAER[70] the bottom 70 per cent save 6 per cent of that total while the top 10 per cent save 68 per cent and the top 5 per cent 50 percent. In particular, the lowest 45 per cent of the urban people saved 4 per cent, while the top 10 per cent saved 56 per cent. Thus the inequality situation in industrial, agricultural and commercial sector is worsening in the country.

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